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ABSTRACT

Nine papers and associated remarks constituting the proceedings of the 1988 Norstar Conference concerning the assessment of performance in higher education, and two prefatory papers are presented. The prefatory papers are: (1) "A Context for Change: The Reform Movement in Higher Education" (Judith M. Holtan); and (2) "Models of Excellence and Approaches to Assessment" (Timothy Lehmann). The conference proceedings, under the rubric "Assessing Performance in Higher Education", include the following papers: (1) "Opening Remarks" (James W. Hall); (2) "Accountability for New York State Agencies" (Thea Hoeth); (3) "Academic Assessment: The Right Thing for the Right Reason" (Joseph C. Burke); (4) "National Perspectives on Assessment" (Carol M. Boyer); (5) "Public Perceptions of Higher Education" (Edward B. Fiske); (6) "The Tennessee Experience: Performance Funding" (Homer S. Fisher); (7) "The Tennessee Experience: The View from a Campus" (Trudy W. Banta); (8) "The King's College Experience" (D. W. Farmer); and (9) "Accountability and the Recognition of Education as a Collective Value" (E. Thomas Moran). A 90-item list of references is included. (TJH)

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ACCOUNTING FOR QUALITY THROUGH ASSESSMENT

Timothy Lehmann **Judith M. Holtan**

A SPECIAL REPORT

THE 1988 NORSTAR CONFERENCE ON EXCELLENCE IN EDUCATION

Jointly Sponsored by the
Nelson A. Rockefeller Institute of Government

and

Empire State College
State University of New York

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Timothy Lehmann is the Assistant Vice President of the Office of Research and Evaluation at Empire State College (SUNY). Since 1973, he has been resposible for conducting studies of adult learners, graduates, leavers, faculty, special college programs, and related costs. With a Ph.D. in sociology from the University of California at Berkeley, Lehmann has taught at Ohio State University, Chabot Community College, Colorado State University, and Empire State College. His current research interests are in adult learning, adult development, assessment, sociology of education, and program evaluation. He is also Director of the National Center on Adult Learning sponsored by Empire State College.

Judith M. Holtan was an Assistant Dean for Assessment at Empire State College from 1984 to 1988. She holds an M.P.A. degree, with a concentration in Public Management, from the Rockefeller College of Public Affairs and Policy, and an M.A. and a Ph.D. in Geography from the University of Minnesota. She is currently writing an article on the ethical foundations of public administration.

ACCOUNTING FOR QUALITY THROUGH ASSESSMENT

The Movement to Redefine Undergraduate Education

Timothy Lehmann
Empire State College

Judith M. Holtan

A SPECIAL REPORT

THE 1988 NORSTAR CONFERENCE
ON EXCELLENCE IN EDUCATION

Jointly Sponsored by the
Nelson A. Rockefeller Institute of Government

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State University of New York

December 1988
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Foreword

On June 23, 1988, the Nelson A. Rockefeller Institute of Government and Empire State College jointly sponsored a conference on assessing performance in higher education. The conference was designed for top policymakers in New York State and more than 125 executives from business, government, and higher education were invited. Individuals attending the conference came from several New York State agencies, legislative committees, business and industrial corporations, the Business Council, and unions as well as all sectors of higher education in the state, including the State University of New York's university centers, university colleges, and community colleges, the City University of New York, private colleges and universities, and the State Education Department.

The conference was organized to bring together experts on assessment and accountability issues who presented national, state, and institutional perspectives and working models to the audience. This Special Report places the conference presentations in a larger context of undergraduate reform, the demands for accountability, existing models of excellence, and new approaches to assessment. With a brief conclusion and extensive bibliography, the entire report is intended to provide interested policymakers with a more comprehensive discussion of assessment and accountability issues involved in the undergraduate reform movement. The report is also intended to highlight effective models and practices that the state of New York may consider as it formulates educational policies in this area.

The authors would like to thank the Norstar Bank for providing an endowment fund to the Rockefeller Institute for an annual conference on excellence in education. The expertise and efforts of many people made the 1988 conference a successful experience. The authors would like to express their thanks to those on the program who shared their views and experiences on accountability and assessment issues: James W. Hall, President, Empire State College; Thea Hoeth, Special Assistant to the Governor for Management and Productivity, State of New York; Joseph C. Burke, Provost, State University of New York; Carol M. Boyer, Senior Policy Analyst, Education Commission of the States; Edward B. Fiske, Education Editor, *The New York Times*; Homer S. Fisher, Executive Vice Chancellor for Business, Planning and Finance, The University of Tennessee at Knoxville; Trudy W. Banta, Research Professor and Director, Assessment Resource Center, The University of Tennessee at Knoxville; D. W. Farmer, Vice President for Academic Affairs, King's College, Pennsylvania; E. Thomas Moran, Assistant Vice President for Academic Affairs, State University College at Plattsburgh.

Special thanks go to the staff of the Nelson A. Rockefeller Institute of Government for their cosponsorship of the conference, their assistance and support in planning the conference, and for assisting in the preparation of the Special Report. We would like to especially recognize David Andersen, Director of the Rockefeller Institute, Cathy Stone, Director of Development and Special Projects, Robin Mandelkorn, Intern, and Susan Lenz, Production Manager.

Finally, the authors wish to thank James W. Hall, President of Empire State College, who endorsed and fully supported the idea of this conference. We also want to thank Judy

Remington who transcribed and typed all the conference speeches and who prepared the various drafts and final version of the text for this Special Report.

I. A CONTEXT FOR CHANGE:

The Reform Movement in Higher Education

Judith M. Holtan, Ph.D.

In recent years, government policymakers and educators have been engaged in a dialogue concerning the quality of undergraduate education. The outgrowth of this concern has been the current educational reform movement that includes improved institutional accountability and outcomes assessment. The underlying assumption in the push for improved accountability through assessing student learning is that the traditional methods of assessing individual student achievement, and program and institutional effectiveness, are inadequate. Further, it is assumed that improving the measurement of learning outcomes will, necessarily, lead to institutional self-assessment and greater effectiveness in the fulfillment of institutional missions. But assessment has its critics—and its controversies. For example, neither group—state policymakers or educators—has agreed upon the meaning of "quality" in higher education; neither group has determined what should be the *outcomes* of an undergraduate education; and neither group seems clear about how one best assesses those outcomes. Nevertheless, a number of states have already endorsed the concept of assessment to achieve excellence in higher education and to demonstrate accountability, and have instituted programs of surveying and testing students. Perhaps there will never be consensus on these issues, but we now have sufficient experience in assessment to frame the dialogue better and to move the discussion in more fruitful directions.

Because this is an issue that is gaining in importance nationally, and because the dialogue and the discussion are critical to the future of undergraduate education, we developed the conference on "Assessing Performance in Higher Education" and include the presentations in this publication. The conference brought together a number of policymakers from government, business, and higher education to discuss with the experts the twin issues of accountability and assessment from a national and a state perspective. The following is designed to provide an introduction to the conference presentations by setting forth the major issues and the context from which the current reform movement in higher education emerged.

The National Reports

Assessment, incorporating new approaches to defining student learning, is the major part of the current reform in undergraduate education as the higher education community responds to the challenges issued in the spate of national surveys and reports released during the mid-eighties that revealed a decline in overall academic achievement nationally. The reports also revealed a growing sense by leaders from business and industry, the professions, and the government that recent college graduates were not meeting their expectations in preparation for the workplace. As a result, political leaders, particularly at the state level, began to request better measures of accountability from colleges and universities to justify the funding of higher education. Rather than relying upon the traditional accreditation standards—

overly dependent upon resource and process measures—state governments now want information on the *outcomes* of students, programs, and institutions. But more importantly, their concern is directed towards assurance that higher education in America provides quality education that will meet the demands of the twenty-first century.

In 1983, the National Commission on Excellence in Education issued its report *A Nation at Risk: The Imperative for Educational Reform* that warned of a "rising tide of mediocrity" unless academic standards were raised in our nation's secondary schools. The deficiencies found in high school education were linked to the relaxed standards for the baccalaureate degree over the preceding fifteen years. Among the indicators of "risk" cited in the report were: the steady decline in the Scholastic Aptitude Test (SAT) scores; the lowered admissions standards of the more "selective" colleges and universities; and weakened teacher preparation through a curriculum that stressed methods courses rather than coursework in the subject areas and in general education. A report from the College Board in 1984, with data from their Admissions Testing Program between 1972 and 1983, confirmed the decline in academic performance among those taking the SATs. In 1972, 56 percent more students scored above 600 than in 1984 and of those scoring above 650, there were 73 percent more in 1972.

Another national report released in 1984, *Involvement in Learning: Realizing the Potential of American Higher Education* from the National Institute of Education, called for a renewed emphasis on undergraduate teaching and proposed that new priorities be set in American higher education, stating:

> The higher education system sets the tone for the whole of American education and determines the aspirations of students at all levels. Americans respect learned men and women who have mastered the highest reaches of knowledge. Thus, if American higher education settles for less than the best—if it allows the chase for academic credentials to supersede the pursuit of learning—all levels of education will suffer (p. 14).

The report cited recent studies that showed a "disturbing trend" in the scores of the subject area tests of the Graduate Record Examination (GRE), in which student performance declined in eleven of the fifteen major subject areas from 1964 to 1982. The report argues strongly for the development of assessment programs that will measure student learning outcomes and provide information for curriculum planning and program planning, recommending that institutions "make a conscientious effort to acquire and to use better information about student learning, the effects of courses, and the impact of the programs" (p. 21). A follow-up study to the Commission's report refined the data and included the test scores from the professional school entrance examinations, such as the Law School Admissions Test (LSAT) and the Graduate Management Admissions Test (GMAT). Since over a half-million of these tests are taken every year, a decline in the scores over several years could suggest a deterioration in the quality of undergraduate preparation. The author of the report, however, cautions: the scores of the tests do not tell us about the quality of American higher education, they only reflect the changing quality of student learning (Adelman, 1984).

State leaders have been among the most vocal critics of higher education. In the National Governors' Association report, *Time for Results: The Governors' 1991 Report on Education* (1986), the Task Force on College Quality included the following statement outlining the need for greater accountability through assessment programs:

> America's institutions of higher education stand as a gateway to opportunity, enterprise, and individual growth. Substantial public and private funds support these institutions. Public policymakers, taxpayers, students, and parents should expect colleges and universities to fulfill their promises. To assure accountability, post-secondary institutions must assess student learning and ability, program effectiveness, and institutional accomplishment of mission (p. 159).

The current interest in assessing learning outcomes by state leaders is linked to more than financial accountability—there is the recognition that excellence in education bears upon future economic growth and prosperity. In the mid-eighties two other national reports appeared that issued much the same challenge for higher education. Noting that with the growth of professional studies and increasingly narrow specialization, student interest in general education had waned, the reports, *To Reclaim A Legacy* by William J. Bennett and *Integrity in the College Curriculum: A Report to the Academic Community* from the Association of American Colleges, called for a renewed emphasis on liberal learning.

The circle of debate that currently surrounds the issue of quality in education has widened to embrace the professoriate. Two critiques of American education have made the best-seller lists the past year. Allan Bloom's *The Closing of the American Mind* and E. D. Hirsch's *Cultural Literacy* address our declining expectations of what the educated person should be. The former is directed specifically at higher education, while *Cultural Literacy* takes on the average high school graduate in America. Each book, in its own way, prescribes a return to the traditional values of the liberal arts curriculum. But the point to be made here is, they have drawn a new audience to their arguments—the interest in educational reform has moved beyond the policymakers and the educators to appeal to an American public that suspects it has been settling for something less than it deserves in its educational system.

Since regional accreditation has been the primary means for the academic community to ensure quality, the reform movement in higher education has meant that the process of accreditation has also come under attack. Regional accreditation is higher education's certification of quality. Through a process of self-study and evaluation by a team of external peer reviewers, each institution that meets the standards set by its regional association receives accreditation. The emphasis has been placed on an institution's resources (inputs). Thus the more easily quantifiable information, such as student-faculty ratios, numbers of volumes in the library, faculty with doctorates, etc., becomes the important criteria in judging the quality of an institution. Resources for learning are important. The case, however, rests on whether the resources are used in such a way that the institution's mission is achieved. The quality of the academic program and the effectiveness of teaching undergraduates are too often inferences made with little substantive evidence to back them. After pointing out the accrediting agencies' inability to address the decline in academic standards, the report, *Time for Results,* states among its recommendations: "The higher education accrediting community should require colleges and universities to collect and utilize information about undergraduate outcomes. Demonstrated levels of student learning and performance should be considered in granting institutional accreditation" (p. 163).

The Commission on Higher Education of the Middle States Association of Colleges and Schools, in its standards for accreditation (1982), includes this statement: "Efforts should be undertaken to assess student achievement in general as well as in specialized areas of the

curriculum on an inclusive as well as course-by-course basis, and when possible in comparison with student achievement elsewhere. Institutions should make frequent appraisals of the records of their graduates in education beyond the two- or four-year college level, survey alumni opinions, reports from their employers" (p. 11). Nevertheless, input measures still remain the important criteria in judging the quality of an institution. And regional accreditation still remains the primary means for the academic community to ensure quality, although its critics have not failed to notice the implications of its weaknesses. As Glen Dumke, writing in *The Chronicle of Higher Education* (January 1986), noted: "If accreditation is to recover the confidence it once enjoyed, it must do something about degree requirements. There was a time in this country when a bachelor's degree connoted certain abilities, including some competence in written and spoken English, some understanding of the cultural amenities, a knowledge of history, and some basic skills in mathematics and science." Strong words. But the writer's point goes back to the concern for the variation in quality from institution to institution and the insufficient attention that has been paid to the learning outcomes of the institution's graduates.

The American higher education system is a vast network made up of over three thousand institutions whose size and mission range from small technical colleges to vast research universities. Nearly half of the institutions are private—sectarian and nonsectarian—colleges and universities. The remaining colleges and universities belong to the public sector with most of them controlled by independent governing boards. American higher education is unique because of its extreme diversity and its decentralized nature. Its institutions of higher education arrange themselves in a hierarchy through a process of selectivity. At the top of the hierarchy are the most prestigious research universities able to attract students with the highest admissions test scores and faculty with the best national reputations. The lower levels of the hierarchy are made up of two-year colleges with open admissions policies. Our notions of quality in higher education have been shaped by the reputations of a few institutions at the top (Astin, 1985). We may have to change our notions. As the debate about excellence in undergraduate education has deepened, through greater concern for teaching and student development, the institutions that have taken a leadership role have not been among those at the top of the hierarchy. Three of these institutions immediately come to mind—Alverno College, Northeast Missouri State University, and King's College in Pennsylvania. They have successful assessment programs that have been in place for a number of years. Each institution uses assessment in a slightly different way to support their educational goals; all, however, can serve as an example of what can occur through the collaborative efforts of the faculty, the students, and the administration when common goals of educational achievement are set forth. The information that assessment generates can be used to improve program review, strategic planning, and the budgetary process. Assessment is a key to providing greater accountability to internal and external audiences.

The Demand for Accountability

The nation has an important stake in the quality of its higher education. The increased interest in greater accountability by colleges and universities is linked to the public's awareness of the role that post-secondary education plays in shaping the social, economic, and political environment of America. The issues that have forced the accountability debate can be

organized into four major themes: economic competitiveness, the values of a democratic society, fiscal accountability, and consumer protection. In the past, higher education avoided controversy because the public allowed it to monitor its own standards and performance through the accreditation process. But the immunity from this kind of public scrutiny began to change with the reform reports of the mid-eighties as they called attention to the role that education must play in our future well-being.

The Competitiveness Theme

The foremost of the issues concerns America's weakened ability to meet increased competition from abroad unless we develop a labor force capable of generating the knowledge and the technologies required for sustained future economic growth. In 1986 executives from industry, labor, and higher education formed the Council on Competitiveness, designed to improve America's competitiveness in the world market. The Council developed a "Competitiveness Index" to chart U.S. performance against the seven other "summit" countries using 1972 as the base year. The index is set at 100 for that year; it includes figures on the standard of living, trade, productivity, and investment in future competitiveness. Their first report shows that the U.S. has not equalled the other countries in any of the four categories. Education spending is included in the index as part of the category "investment in future competitiveness" along with spending for nondefense research and development, and new plants and equipment. In 1986 the U.S. expenditure on education was 6.8 percent of the Gross Domestic Product (G.D.P.) compared to an average 3.48 percent for the other countries; in 1972 U.S. spending for education was 7.2 percent of the G.D.P., compared to their 3.72 percent. That our investment in education has remained nearly double that of the other countries while our competitiveness has declined, suggests that either education correlates rather weakly with economic growth and prosperity, or, as the project director of the study, Daniel F. Burton, Jr., states: "On paper, the U.S. is spending a lot on education. Whether or not we're getting a big enough bang for our buck is another question" (*Education Week*, June 15, 1988). The competitiveness index accounts for the country as a whole, but more interesting in view of the current push for educational reform, is the role that state policymakers have played in what was previously considered a national issue. For the past two decades the U.S. has not enjoyed a period of sustained growth shared equally among most of its member states. With state policy-making becoming more sophisticated, in part the result of the reduced role of the federal government encouraged by Republican administrators, the states are becoming increasingly competitive among themselves for domestic and foreign investment. And a good part of their strategy for competitiveness has hinged on improving their states' educational systems to attract business and industry with a educated workforce.

In a recent study that analyzed the role of education with respect to the workplace, Henry Levin and Russell Rumberger argue persuasively that technological skills are less important than "technological literacy"—knowledge of how technology shapes our lives in the workplace and outside—in meeting the challenge of the future. Using evidence from a number of studies (their own and others), they have concluded that the new technologies themselves will not have a profound effect in upgrading the education and skill requirements of most jobs. They stress, instead, the possibilities associated with the new technologies that can be incorporated into the organization of work to create jobs that are challenging and meaningful to the individual worker.

> In our view, education not only responds to the needs of the workplace, but also has the power to shape them. Consequently, schools and universities should not simply provide the education and the training that educators and policymakers think future jobs will require, but should provide the education and the training that will help students—as workers, employers, and government officials—to shape the requirements of work. This includes helping to determine how work is organized and technology employed to provide favorable impacts on jobs and skill requirements. It includes the provision of better decision-making skills among workers so that they can use the data provided by an information-rich environment to make better choices regarding the use and allocation of productive resources. This view also suggests that the best preparation for the future is a general rather than a specific job-focused education, one with a strong foundation in the liberal arts (Levin and Rumberger, 1987, p. 350).

Derek Bok, in *Higher Learning* (1986), has suggested that with the rapid increase in new knowledge students must be taught "habits of continuous learning" rather than a fixed body of knowledge. Thus analytical skills, techniques of problem solving, and the capacity for innovative and creative thought typically developed in the undergraduate years must be reaffirmed by the higher education community as it responds to its critics. King's College in the late 1970s, anticipating the reform in higher education, launched a long-range campaign of planning for excellence based upon the question: "What is the proper definition of excellence in higher education for students who will be living and working in the 21st century?" (Farmer, 1988; "The King's College Experience," p. 64). Their response to the question was the development of an "outcomes-oriented" curriculum that emphasized a number of essential competencies within the goals of liberal learning agreed on by the faculty. Among them are such habits of learning as critical thinking, creative thinking and problem-solving strategies, library and information technologies, and quantitative analysis.

The Values of a Democratic Society

The second concern for maintaining quality in our colleges and universities is based upon the recognition that higher education plays a significant part in training citizens for effective leadership and participation in our democratic society. Our higher education institutions perpetuate—through teaching, research, and public service—the democratic ideal by the transmission of our cultural heritage and the principles upon which our form of government was based. This goes back to the notion of liberal learning. But historical consciousness of the founding of the nation is not enough. Higher learning should also develop a compassion for the diverse groups that create a pluralistic society, and a sensitivity to those continuities that regard the individual, yet bind us together as one nation. Our colleges and universities must also bear the social responsibility of providing access to the quality education that ensures citizens their full participation in society. As Joseph Burke pointed out in his presentation to the conference:

> [T]he growing demands of learning and life in a society based increasingly on knowledge and information require that a growing proportion of Americans benefit from higher education . . . . Student bodies on most campuses will become ever more diverse—more part-time, more minority, more mature, more handicapped. The residential college in a rural setting filled with recent high school graduates

> with good educational preparation and clear career goals has become the exception rather than the rule. Yet the conventional view of institutional excellence in higher education lingers on though the conditions that fostered it have long since gone ("Academic Assessment: The Right Thing for the Right Reason," p. 32).

The current movement for accountability through the assessment of the outcomes of higher education is intended that students from all socioeconomic backgrounds have access to a quality undergraduate experience.

Fiscal Accountability

The third aspect of accountability involves accounting for the financial investment the public has made in higher education. Higher education in 1987–88 made up 2.8 percent of the Gross National Product, absorbing about $124 billion in resources. In the previous academic year, the average expenditure per full-time student from education and general funds was $8,924. This represented an increase of 24 percent from 1981–82 (Finn, 1988). The assessment movement received its major impulse from state governments when governors and legislators started to mandate such programs to provide greater accountability to the public for its investment in higher education. It seems fair to say, with the recent trend towards greater accountability among the other agencies of the states, that the reasoning simply extended itself into the higher education sector as well. Thea Hoeth discusses New York State's efforts in this regard in her presentation to the conference; the State Education Department, SUNY, and CUNY are included among fifteen state agencies that are undergoing a comprehensive program evaluation as part of an accountability effort by the administration of Governor Cuomo (see "Accountability for New York State Agencies," p. 26).

There have always been certain required reporting functions to provide oversight for public higher education, such as financial accounting and resource allocation information, information concerning physical assets, and enrollment data. Today's emphasis on accountability is different, for it stresses student outcomes as well as information concerning an institution's effectiveness in meeting the goals of its mission. The state's involvement in higher education is defensible not only because of its funding support, but also because it must ensure that all of its citizens are provided equal access to education. Thus state authority may also extend to private institutions as part of maintaining the higher education asset as a whole. Private institutions become accountable, too, when they share in state-funded financial aid programs for their students (Ewell, 1987). As the costs of maintaining their higher education systems have risen, state governments have become increasingly sensitive to the need for justifying the expenditure in performance terms.

Consumer Protection

Finally, there is an aspect of accountability that is linked to "consumer protection." Students as consumers of a service should be assured that the results of their financial investment and expenditure in time will match at least some of the claims made by the colleges and universities that recruited them. When students and their parents consider the

many catalogs and glossy recruitment brochures, and decide where they will invest the twenty to sixty thousand dollars it costs for an undergraduate education, they need to feel the institution will stand behind its assertions of quality. If an institution has promised career preparation and job placement in its recruiting activities, there should be sound information about those who have already graduated to back up its claims. It has been estimated that last year's graduates received their baccalaureate degrees with an average debt of $8,000. Students considering a major investment in education should be provided better information about the institution's past record in terms of student achievement and student development so they can make informed choices. Information about learning outcomes and the surveys of graduates lends credibility to college catalogs.

The pressure for public accountability that goes beyond the simple reporting functions previously expected has created the most controversy within the recent movement towards education reform. Aside from opposition to outside interference and on other general philosophic grounds, there are two important concerns about state-mandated assessment. There is the fear that assessment information will be publicly distributed to invite unfair comparisons among the institutions, with little regard for the specific mission of each institution. And the second concern, of particular interest to faculties, is the fear that mandated competency testing will shift the curriculum towards those areas in which students can easily be tested rather than maintaining a curriculum in support of a particular academic program of study deemed important by the faculty. Despite assurances by state officials that faculties and administrators will bear primary responsibility for the development of an appropriate assessment program on their campuses, the fear remains that the tests will determine the teaching. Peter Ewell of the National Center for Higher Education Management Systems (NCHEMS) has noted the distinction between assessment to provide accountability to an external constituency and assessment as a part of internal planning for institutional improvement. He cautions: "Regardless of its domain, the concept of accountability requires not only performance itself, but also requires public presentation of evidence that requisite performance has been achieved. Accountability information must be of a particular kind—generic, summative, and easily comprehended by lay audiences. The use of information for improvement requires a quite different kind of communication" (Ewell, 1987, p. 12). Among the issues he raises are the limitations inherent in statistical reporting—the most common form of presenting accountability information—and the problems associated with communicating negative information to external constituencies. Assessment information used internally for institutional improvement can be more qualitative and can be used as a feedback process that allows the students, the faculty, and the administration the opportunity to make informed decisions concerning academic achievement, the curriculum, and the allocation of resources. The role that assessment can play in strategic planning is to provide constant information that can be analyzed for defining the curricular objectives and institutional goals for the future. For the controversies that surround assessment as part of accountability should not obscure the place of assessment in the general trend towards educational reform—however one defines the means, academic improvement should be the intended goal.

II. MODELS OF EXCELLENCE AND APPROACHES TO ASSESSMENT

Timothy Lehmann
Assistant Vice President for Research and Evaluation
Empire State College
Saratoga Springs, New York

Models of Excellence

The reform movement and the series of reform reports, commission studies, and national policy declarations just reviewed call for redefining undergraduate education in ways to meet the challenges of the 21st century. In the post-World War II period, American higher education has improved access so that more than twelve million students are enrolled; has expanded educational opportunities to all social classes, ethnic groups, and regions of the nation; and has come close to realizing the democratic dream of equality, whereby a college education is within the grasp of nearly everyone. No other nation in the world has achieved such a remarkable record of providing education for all.

Yet the reform reports call into question the performance of this huge enterprise. Ever since *A Nation at Risk* was published in 1983, new calls for "undergraduate reform," "higher performance," "improved quality," and "increased accountability" have surged forward in state after state. Some state legislatures and governors have now mandated that colleges and universities develop assessment plans and "test" students at entry and subsequent points in their college careers. Several colleges themselves have pioneered in the past decade in establishing comprehensive assessment programs that demonstrate improved performance by students.

To gain a sense of the magnitude and scope of the undergraduate reform movement, the Education Commission of the States (ECS) conducted nationwide surveys in 1986 and 1987. In 1986, ECS found that all 50 states had initiatives underway to improve undergraduate education. The range of initiatives covered such topics as admission standards, high school/college transition, "value-added" assessment of student outcomes, alternative resource allocation and funding mechanisms, special incentive funding for undergraduate education, and blue-ribbon commissions on higher education within a state (Boyer and McGuinness, 1986, p. 3). The 1987 survey revealed that two-thirds of the states now had formal initiatives called assessment but state authorities, except in a few cases, left to the institutions the design and conduct of assessment strategies. As the survey notes, "governors and legislators have placed the quality of undergraduate education and student learning squarely on the state agenda. The state boards aim to keep it there" (Boyer, *et al.*, 1987, p. 9). Again, the range of activities state boards of higher education are pursuing is an impressive list: mandated statewide testing programs; testing for teacher education; early intervention programs; encouraging institutional action; assessment within existing statewide mechanisms; and statewide monitoring of other outcomes. The most recent update on the states can be found in Carol Boyer's address to the Conference, beginning on page 36.

Another illustration of the scope and magnitude of the reform movement has been the activities of the American Association for Higher Education (AAHE). At its past three National Conferences, AAHE has established "an assessment action community" where those interested individuals could meet and discuss topics of mutual concern. With support from the Fund for the Improvement of Post-Secondary Education (FIPSE), AAHE has also launched a yearly National Conference on Assessment and established an Assessment Forum. The third such conference was held in June 1988 and was attended by almost 1,000 people, representing hundreds of colleges and universities. The conference addressed such topics as assessing general education outcomes, public policy and institutional practice, students, methods and instruments, and assessment impact and results. These illustrations and surveys bring us naturally to the section of this report which focuses on the definitions of excellence and different assessment strategies in use.

Federal and state policymakers as well as higher education leaders have not yet agreed upon common definitions of quality, or what constitutes the core of an undergraduate education, or how best to demonstrate the performance of individual students and the effectiveness of entire institutions. In an effort to provide some common grounds for discussion and to reduce some of the confusion and controversy surrounding different ideas of quality or excellence, one insightful leader of the reform movement has set forth four models of excellence that have served to justify the development of higher education. Astin offers a critical appraisal of the strengths and weaknesses of each, calling for a major redefinition of undergraduate education. Astin argues that the four approaches to excellence—the reputational, the resource, the content, and the outcome or talent development—are not "necessarily consistent with the educational missions of most institutions, that they interfere with our efforts to expand educational opportunity, and their use does not promote greater excellence in the system as a whole" (Astin, 1985, p. ix). Let us examine each of these models of excellence so that we can better see why undergraduate education needs a new model to sustain education as we near the 21st century.

The Reputational Model of Excellence

Survey after survey show the same set of colleges and universities at the top of the higher education enterprise. Excellence is the perceived view of a college's program. Common folklore underlying reputations seems stable and resistant to change, as surveys over the years show. Quality ratings reveal a halo effect with highly rated departments clustered in the same college. This approach is criticized as being subjective and not focusing directly on student learning and development. Only a limited number of colleges are "best" and opportunities for less-well-prepared students are limited. The reputational view stresses what others *think* of your program.

The Resource Model of Excellence

Excellence is bringing together the right resources (students, faculty, physical facilities, financing) and then student learning and development occur. This approach assumes the more

resources there are, the better the learning is. The focus is on such measures of quality as low student/faculty ratios; high student test scores; high faculty publication rates; low average class size; large numbers of library books; and high endowments. High selectivity tends to reduce social diversity of the student population. Critics argue this approach does not focus directly on student learning and it overemphasizes input variables. It also focuses energy on accumulating resources rather than analyzing their effective use. It also assumes only a few students can learn and succeed (meritocratic view). The resources view stresses what the college *has*.

The Content Model of Excellence

Excellence is what is taught, usually defined as the liberal arts and sciences. The most prestigious colleges stress the liberal arts. This approach favors the assertive, well-prepared student. It assumes there is faculty agreement about a core curriculum of desirable knowledge. Critics argue that there is little research evidence to support the superiority of the liberal arts curriculum and faculty responsibility ends with coverage of content. Student learning depends on exposure to the right subjects and students tend to take a passive role in learning. This approach encourages specialization and fragmentation of faculty interests and equates scholarly expertise with pedagogical ability. The content view stresses what faculty *teach* and *present* to students.

The Talent–Development Model of Excellence

Excellence is what a college does to develop the talent of its students—from time of entry to exit and beyond. The outcomes or talent-development approach assumes all students can learn and "succeed." It stresses assessment of actual student learning, the development of multiple skills and the evaluation of the "whole student." This approach assumes the student is an active learner, meeting and exceeding the minimal performance standards. Critics argue this approach is too complex and lacks appropriate measures to determine the extent and level of student learning. Often, it reduces the creative aspects of learning to a lowest common denominator—test score results and simple cognitive skills. To fully implement this approach may require substantial retraining of faculty and administrators. The outcomes approach stresses what students are able to *do* as a result of their collegiate experience. (These brief statements on the models were adapted from Astin, 1985.)

Approaches to Assessment

Assessment strategies today have taken on much broader meanings within the context of evolving and different models of excellence. In an effort to illuminate several assessment strategies, especially those which embrace the talent development model of excellence, this Special Report describes eight specific approaches to assessment in higher education. For each approach, we shall discuss the basic assumptions, strengths and weaknesses, pioneering states and colleges where developed intensively, typical instruments used, and major results to date.

In practice, each approach is rarely implemented in its ideal form; rather, colleges tend to draw upon a mixture of methods, strategies, and instruments to improve student learning. The author is indebted to Theodore Marchese (1987) for a stimulating article using some of these approaches,which have been extended and enlarged upon here so that the reader may obtain a fuller sense of each approach.

Assessment as Standardized Testing

Standardized testing is perceived by many to be the equivalent of assessment largely because standardized testing has become recognized as a crucial achievement of measurement psychologists. The dominant image held by many is a room with hundreds of students taking a Regents exam or an SAT or a GRE paper-and-pencil, multiple-choice test using a machine-scored booklet of questions. The basic idea of the test is to measure a sample of the student's behavior, under controlled conditions, so that performance in a larger arena of behavior can be inferred. Tests are claimed to be objective, reliable, useful, and cost-efficient ways of obtaining information about students' achievements, behavior, attitudes, values, and satisfactions. The variety and possibilities for such tests are enormous: they may be criterion-referenced (all students pass at a designated level of performance) or norm-referenced; they may be used for individual diagnosis or group description; or they may be locally designed or produced by major testing companies.

Standardized tests have been frequently used for comparative purposes so that colleges can determine how well their programs and students are doing in regard to norm-referenced test results. Standardized tests beyond those measuring entry-level basic skills are relatively scarce, especially when a college seeks to understand outcomes from general education or higher level intellectual skills. Too often a "quick fix" mentality has promoted the inappropriate use of simple, low-cost, paper-and-pencil tests that provide information on a narrow range of subject items or basic skills. Such testing frequently "trivializes the curriculum" and promotes "teaching to the test" as a strategy for improving student performance, masking underlying limitations of the test instrument.

Northeast Missouri State University is probably the most experienced institution in using norm-based standardized tests over the past 15 years. Northeast uses the ACT assessment tests, ACT-COMP objective tests, and GRE tests in a very large number of subject matter fields. In addition, Northeast's faculty have developed their own local tests and use a number of surveys of the background characteristics, attitudes and experiences of students as they progress in their courses of study.

New Jersey has administered a College Basic Skills Placement Test for over a decade to all entering freshmen at public colleges. Results from the New Jersey basic skills test show very low levels of proficiency; only 26 percent appeared to be proficient in verbal skills; 28 percent appeared to be proficient in computation; and only 12 percent appeared to be proficient in elementary algebra (Lutkus, 1985, p. 8). New Jersey has also developed a College Outcomes Evaluation Program which includes the collection and reporting of information about student learning; student development/post-collegiate activities; research, scholarship, and creative expression; and community/society impact. Within the student learning category,

New Jersey is focusing on five major areas: basic skills; general intellectual skills; modes of inquiry; appreciation for the human condition and ethical issues; and application to study in-depth or in the major (New Jersey, Advisory Committee Report, 1987).

For further information on Northeast Missouri, CONTACT:

President Charles J. McClain
or Darrell W. Krueger
Dean of Instruction
Northeast Missouri State University
Administration 203
Kirksville, MO 63501

or READ: *In Pursuit of Degrees With Integrity: A Value-Added Approach to Undergraduate Assessment.* Prepared by Northeast Missouri State University and published by American Association of State Colleges and Universities, 1984. Also, *The Value-Added Program: Assessing Undergraduate Education*, prepared by Northeast Missouri State University for the National Governors' Association Task Force on College Quality, St. Louis, Missouri, December 1985.

For New Jersey, CONTACT:

Anthony Lutkus, Director of the New Jersey Basic Skills Assessment Program, and Edward A. Morante, Director of the College Outcomes Evaluation Program, New Jersey Department of Higher Education, 225 West State Street, CN542, Trenton, NJ 08625

or READ: *Report to the New Jersey Board of Higher Education from the Advisory Committee to the College Outcomes Evaluation Program,* October 1987; and Lutkus, "Testing and Reporting on Graduates: The New Jersey Basic Skills Assessment Program," in Daly, *College-School Collaboration: Appraising the Major Approaches,* New Directions for Teaching and Learning, No. 24, San Francisco: Jossey-Bass, 1985.

Assessment as Competency-Based Education

This model of assessment identifies particular skills and competencies a college will develop in its students as part of the college experience. Students are then measured in some way to determine whether they have acquired the appropriate competencies. A main assumption of the competency-based approach is this: if one knows the main components of an effective performance in college or outstanding job performance after college, then one can systematically teach students to be effective performers. Competency-based education also assumes that the specific and general outcomes that are to be achieved along with the methods to achieve those outcomes can be clearly stated and assessed (Grant, *et al.*, 1979).

Competency-based education is important because it focuses on achievement of desired goals rather than on the time spent in classrooms or the credits accumulated or the educational process used to achieve results.

Alverno College, a small private four-year liberal arts college located in Milwaukee, Wisconsin, is a noteworthy example of a competency-based program. Alverno has set forth eight areas for student achievement: communication; analysis; valuing in decision-making; social interaction; taking responsibility for the environment; involvement in the contemporary world; and aesthetic response. Faculty determine the criteria for assessing these competencies and use multiple methods (including student performances, community evaluators, simulated exercises, extensive interviews) to judge the level of student performance. Alverno's commitment to using assessment as a form of instruction and providing continuous feedback to the learner sets this college apart from others in its ability to promote student learning. To make assessment work for the learner, a strong series of connections must be made:

> [E]xpected outcomes must connect to criteria for performance, to assessment practices, to instructional strategies. On a day-to-day basis, these connections translate into relatedness between what students learn, how they learn, how they will be judged, and what their learning means for their future. In a collegiate institution, we consider the extent of those connections an important measure of the extent to which the environment is organized for learning. We might make some of these connections in a single course or program. But the more assessment is at the heart of the institution itself, the more its power can serve the learner (Loacker, Cromwell and O'Brien, 1986, p. 61).

For further information on Alverno College, CONTACT:

President Joel Read
or Marcia Mentkowski, Director
Office of Research and Evaluation
3401 S. 39th Street
Milwaukee, WI 53215

or READ: "Abilities that Last a Lifetime: Outcomes of the Alverno Experience" by Marcia Mentkowski and Austin Doherty, *AAHE Bulletin*, February 1984, pp. 5-14; and "Assessment in Higher Education: To Serve the Learner," by Georgine Loacker, Lucy Cromwell, and Kathleen O'Brien in *Assessment in American Higher Education: Issues and Contexts*. Washington: Office of Educational Research and Improvement, 1986, pp. 47-63.

Assessment as Learning

Assessing student learning and personal growth is the foundation of most colleges and universities' undergraduate education, but many do not employ assessment concepts to describe and measure the process. In contrast to assessment of competencies and skills just described, assessing student learning and personal development tends to focus more on the content or knowledge gained as a result of students' collegiate experience and on the values,

attitudes, and motivations of the learners. A classic study using this approach to assessment is Astin's *Four Critical Years* (1977). More recently, the National Institute of Education (NIE) Study Group on the Conditions of Excellence in Education argued strongly that one condition, assessment and feedback, is an essential ingredient in effective learning and a powerful lever for involvement (1984). Regular assessment and feedback constitute a critical means of communication that enhances student learning and can improve programs, teaching practices, and the environment in which teaching and learning take place. In this view, assessment is an organic part of the learning process. More important than assessment as a testing strategy where students are sorted and graded for professional certification and licensing, the Study Group argues that "assessment has even greater potential as a tool for clarifying expectations and for increasing student involvement when it is used to measure improvements in performance" (NIE, 1984, p. 53). A core recommendation of the NIE report stresses the need for faculty to be trained in using "assessment as a teaching tool." So important is the principle of assessment–as–learning that the Study Group argued it requires full faculty participation.

In two recent papers, Patricia Cross has presented a strong case for bringing the assessment effort right into the classroom (1988a, 1988b). Thinking small about assessment as an alternative to large–scale institutional or statewide mandated testing, Cross sees the faculty, not only as the "designated guardians of standards and quality," but also as the fulcrum of change in curriculum, teaching strategies, and the quality of student learning. "What happens when teachers meet students in the classroom lies at the heart of educational quality" (Cross, 1988a, p. 29). Calling for faculty to become classroom researchers, she argues that such faculty can experiment and develop more effective teaching strategies based in their own disciplines, with the types of students they teach, and focus on matters that are most relevant to their teaching goals. Such an effort is likely to generate more substantial improvements in learning if teachers can acquire the proper tools to assess students' learning in their classrooms and conduct modest experiments on the impacts of their teaching.

Cross points out that large gaps may exist between teaching and learning:

> Teaching and learning are not necessarily two complimentary aspects of the same phenomenon. Learning can and does go on without teaching. Unfortunately, too, teaching can and does go on without learning. But while learning has many ends, teaching has only one: to enable or cause learning.
>
> I am not suggesting that teachers can close the teaching/learning gap without the cooperation of students. Learners share in the responsibility for the effectiveness of education. Much as a zipper involves both sides equally in moving toward closure, so classroom research seeks to make teaching and learning equal partners in narrowing the gap between teaching and learning.
>
> By the same imagery, however, the zipper becomes stuck when teachers believe that their sole obligation is to present material in a clear and logical manner. Unless teachers can make connections between their teaching and what students already know, learning is not likely to follow. The purpose of classroom research is to provide continuous feedback on what students know and learn, so that teachers and students can relate to one another by making all those little connections that move teaching and learning closer together (Cross, 1988b, pp. 3–4).

For further information, READ:

K. Patricia Cross and Thomas Angelo, *Classroom Assessment Techniques: A Handbook for Faculty*. Ann Arbor: University of Michigan, NCRIPTAL, 1988; K. Patricia Cross, "Feedback in the Classroom: Making Assessment Matter," paper presented at AAHE Assessment Forum, Third National Conference on Assessment in Higher Education, Chicago, Illinois, June 8–11, 1988a; and K. Patricia Cross, "In Search of Zippers," *AAHE Bulletin*, Vol. 40, No. 10, June 1988b, pp. 3–7.

Assessment as Value–Added

The value–added approach goes beyond the idea of testing at the end of the program or completion of a major or the first two years of general education. This approach requires assessment of students' skills and knowledge and attitudes at time of entry and then at subsequent points during the students' college careers. By having in effect pre– and post–measures, the model controls for the entering abilities and knowledge of the students so that the contribution of the college's program can be assessed in the change students make as they move to graduation.

The University of Tennessee at Knoxville employs the ACT–COMP test with freshmen and seniors so that college impact can be evaluated. In addition, seniors are assessed by departments regarding knowledge of their major field, and opinion surveys supplement test scores. All of this value–added data is designed to satisfy the state of Tennessee's requirement for outcomes information that is tied to a statewide performance funding program. Colleges must demonstrate their impact on students through outcomes assessment which has funding implications based on the results. (See Fisher's presentation (p. 52) and Banta's presentation (p. 58) for the most recent picture of Tennessee's approach as well as the resources listed below.)

For further information on the University of Tennessee at Knoxville and the Tennessee Performance Funding Approach, CONTACT:

Trudy S. Banta, Director
Assessment Resource Center
University of Tennessee, Knoxville
2046 Terrace Avenue
Knoxville, Tennessee 37996

and

Homer S. Fisher
Executive Vice Chancellor for Business, Planning and Finance
University of Tennessee, Knoxville
405 E. Andy Holt Tower
Knoxville, Tennessee 37996

or READ: Banta and Fisher, "Putting a Premium on Results," *Educational Record*, Spring-Summer 1986, pp. 54-58; Banta, "Use of Outcomes Information at the University of Tennessee, Knoxville," in Peter T. Ewell (ed.), *Assessing Educational Outcomes*. San Francisco: Jossey-Bass, Inc., New Directions for Institutional Research, No. 47, 1985, pp. 19-33; Banta, (ed.) *Performance Funding in Higher Education*. Boulder, CO: National Center for Higher Education Management Systems, 1986.

Assessment as Program Evaluation

Using assessment as a program evaluation strategy is a common way for colleges and universities to determine their effectiveness and to collect information relevant to the decision-making process. In this approach, the program is the unit of analysis and not the individual student who progresses through a course of study. A program may be defined as a departmental major, or the general education curriculum, or the entire degree earned. Usually these assessments are done for internal management reasons and are formative in nature although they may produce data useful for external accountability. Program evaluations are built around the goals to be assessed and frequently use multiple measures to provide feedback for program improvements. With the arrival of strategic planning in higher education administrative thinking, some colleges are now conducting program evaluations which include a cycle of program planning and development, implementation, evaluation, and budgetary decision making. Such a cycle, with an assessment component, allows actual data on program goals, operations, and effects, to be included in overall decisions about the institution's future directions.

Program evaluation studies have been conducted for over fifty years in higher education. Pace and his colleagues at the University of Minnesota initiated probably the first elaborate program evaluation studies during the late 30s (Pace, 1941). Pace was inquiring into the effectiveness of the general education programs.

A recent example of assessment as program evaluation can be found at Empire State College, an innovative college serving adult learners in more than 40 locations across New York. Called PERC (Program Effectiveness and Related Costs), this strategy has four unique features: it focuses on assessing educational outcomes first and then relates costs to these outcomes; it relies upon a multiple perspectives strategy; it calls for conducting studies within a longitudinal design; and it emphasizes the practical utility of those results for academic decision makers. Assessment efforts are focused on providing answers to this question: What kinds of students working with what kinds of faculty in what kinds of learning programs change in what ways at what costs? Embedded in this master question are the five concepts of PERC—outcomes, costs, students, faculty, and programs. Reports have been prepared which identify ways to improve the teaching/learning process, increase the retention of students, improve the effectiveness of program operations and delivery, and eventually affect the strategic planning process at the college.

For further information, CONTACT:

Timothy Lehmann
Assistant Vice President
Office of Research and Evaluation
Empire State College
One Union Avenue
Saratoga Springs, NY 12866

or READ: Ernest G. Palola and others, *The PERC Handbook*. Saratoga Springs, NY: Empire State College, 1977; Timothy Lehmann, "Evaluating Adult Learning and Program Costs," in Arthur Chickering and Associates, *The Modern American College*, San Francisco: Jossey Bass, Inc., 1981, pp. 748–772; and "SUNY Empire State College," in Jacqueline Paskow (ed.), *Assessment Programs and Projects: A Directory*. The American Association for Higher Education Assessment Forum, Washington, D.C., 1988.

Assessment by External Examiners

This approach to assessment draws upon external examiners, usually faculty from other colleges, to examine graduating seniors. Relying upon expert peer judgment, this approach to assessment overcomes the usual practice in which the faculty that do the teaching are the same ones evaluating the students' learning. In addition to the major advantage of separating instruction from evaluation, this approach examines learning beyond what is acquired in a course, necessitates faculty participation in the process, considers the distinctiveness of a particular program or department, provides for comprehensive and often multiple forms of feedback, and allows for assessment of higher-order cognitive skills (Fong, 1987). This is an internal form of professional review, captured well by John Harris's aphorism, "Somebody besides the cook should taste the pudding."

External examiners can help a department or program of a college understand the knowledge acquired and skills gained by its senior majors and can pinpoint weaknesses in the department's operations. This strategy provides an important capstone experience for students, giving them sound feedback on their performances. To implement such a strategy, the department or program must be clear about its educational objectives so that its own faculty, students, and the external examiners are able to understand what objectives are to be achieved and what learning experiences are to be examined. The arts programs in many colleges today draw upon this strategy, as illustrated in the music major's senior recital and the art major's culminating portfolio reviewed by practicing artists. This assessment strategy goes beyond the usual credit-hour accumulation for graduation by requiring seniors to demonstrate their knowledge and abilities to outsiders who make judgments about their performance. Swarthmore College and Alverno College are well known examples of American colleges relying upon this approach to assessment. In 1986, the Association of American Colleges launched a major project involving 18 colleges and 11 disciplines to field-test the applicability of external examiners in a variety of educational situations.

For further information, CONTACT:

Carol Schneider
Vice President
Association of American Colleges
1818 R. Street, NW
Washington, D. C. 20009

or

Marcia Mentkowski
Director, Office of Research and Evaluation
Alverno College
3401 S. 39th Street
Milwaukee, Wisconsin 53215

or READ: Bobby Fong, "The External Examiner Approach to Assessment," paper presented at the Second National Conference on Assessment in Higher Education, AAHE Assessment Forum, Denver, Colorado, June 14-17, 1987. On Swarthmore College, see Ohmer Milton and John Edgerly, *The Testing and Grading of Students.* New Rochelle, NY: *Change* Magazine, 1976.

Assessment as Self-Assessment

Another perspective on assessment involves the learner engaging in a series of self-assessment activities and exercises with the ultimate goal of becoming an independent, self-directing person. One of the goals of undergraduate education at most colleges and universities is for the students, by the time they reach their senior year, to have gained enough knowledge and awareness of the learning process itself so that they can continue beyond college to be independent learners, employing critical thinking and evaluative skills learned in college. As college programs begin to recognize individual differences and provide educational strategies

to sustain particular students' learning interests, there have been a number of assessment techniques developed to foster student independence in learning. Malcolm Knowles, for example, in a recent book on *Using Learning Contracts* (1986) presents a number of competency diagnostic guides, planning guides, checklists for learning, and study plans. Other advocates of learners practicing self-assessment activities have produced learning style inventories, learning project efforts, life cycle exercises, and other career and skill building inventories (Kolb, 1984; Tough, 1971, 1978; Knox, 1987).

Although many colleges proclaim that the goal of creating self-directed learners is an important one, they do not rely exclusively on self-assessment strategies like those mentioned above. Rather, they combine some techniques like the ones identified above with other assessment approaches previously discussed. One of the most critical skills that can come out of the self-assessment effort is self-evaluation. Every learner needs to understand the evaluation process and recognize the personal biases inherent in any evaluation effort; yet most learners need to move from a more distant, objective evaluation strategy contained in the other assessment perspectives to a thoughtful, mature, informed and critical self-evaluation process that makes learning significant to the individual.

For further information, READ:

Malcolm S. Knowles, *Using Learning Contracts*. San Francisco: Jossey-Bass, Inc., 1986; David A. Kolb, *Experiential Learning*. Englewood Cliffs: Prentice Hall, 1984; Alan Knox, *Helping Adults Learn*. San Francisco: Jossey-Bass, Inc., 1987; Allen Tough, *The Adult's Learning Projects*. Toronto: Ontario Institute for Studies in Education, 1971; and Tough, "Major Learning Efforts: Recent Research and Future Directions." Paper presented at the American Association for Higher Education National Conference, 1978.

Assessment as Accreditation

Regional accrediting agencies have traditionally reviewed colleges and universities according to broadly defined criteria that have reflected resource and reputational models of excellence. The resource model of excellence, for example, posits that student learning and development is most likely to occur when the right resources are brought together (students, faculty, physical facilities, and financing). The basic assumption here is that the more resources there are the better the learning is. The focus is on such measures of quality as low student/faculty ratios; high student test scores; high faculty publication rates; low average class size; large numbers of library books; and high endowments.

In support of reforming undergraduate education, critics argue that the old models of accreditation are no longer sufficient and should be replaced by a new focus in accreditation self-studies and evaluation visits. Calling for a new focus on performance, results, outcomes, and achievements, the reform movement asks regional accrediting associations to assess colleges and universities in determining the "kinds of instructional outcomes that the institution and its programs seek to produce; documenting the processes by which the institution ensures

that these goals are in fact being attained, together with the appropriate evidence of attainment; and providing evidence of how the results of these processes are actually used by the institutions to make improvements" (Ewell, 1987, pp. 6–7).

The focus on outcomes has now been picked up by most regional accrediting associations. For example, the Middle States Association of Colleges and Schools, in 1982, published *Characteristics of Excellence in Higher Education*, which contains a separate section on outcomes. Middle States says: "The deciding factor in assessing the effectiveness of any institution is evidence of the extent to which it achieves the goals it has set for itself" (1982, p. 10). Using language carefully chosen to avoid reliance on any one method of measurement or preferred assessment strategy, Middle States suggests a multiplicity of approaches to assess student progress and achievement and calls for a plan to measure outcomes that reflects an institution's continuing concern with evaluation and with using results to improve the teaching/learning process.

Professional accreditation agencies assess particular programs from the focused perspective of a given occupation or profession. Outcomes assessment here is usually a generic part of the certification–to–practice process and program graduates are asked to demonstrate their professional competence. Outcomes assessment is recognized as important and legitimate for several reasons. First, it is acceptable because professional accreditation signifies accountability to a professional community and indirectly to the larger public. Second, outcomes of professional education are more limited in nature and somewhat easier to define and assess. Third, professional training and assessment of student work is closely tied to professional certification.

To illustrate the outcomes focus in a professional area, the American Assembly of Collegiate Schools of Business has been conducting an outcomes measurement project over the past decade and recently completed Phase III of its work. Phase I identified and classified the knowledge, skills, abilities, aptitudes, personal characteristics and values that every business school graduate should possess. Phases II and III represented major efforts to develop instruments and field–test those instruments to determine their effectiveness in measuring the desired attributes of business school graduates. The major knowledge areas for which tests were created included: accounting; business environment and strategy; finance; human resources and organization theory; marketing; management information systems; and quantitative analysis. Nine dimensions of skills and personal characteristics were also identified and a set of behavioral simulations were designed to measure the characteristics.

For further information, CONTACT:

Milton R. Blood
Director of Accreditation
American Assembly of Collegiate Schools of Business
605 Old Dallas Road, Suite 220
St. Louis, Missouri 63141

or READ: American Assembly of Collegiate Schools of Business, *Outcomes Measurement Project,* Phase III Report, May 1987; *Characteristics of Excellence in Higher Education,* (1982), and *Handbook for Institutional Self–Study* (1984), Commission on Higher Education of the Middle States Association of Colleges and Schools, Philadelphia, PA. Peter T. Ewell, "Assessment, Accountability and Improvement: Managing the Contradiction," paper prepared for AAHE, National Center for Higher Education Management Systems, Boulder, CO, May 1987.

III. ASSESSING PERFORMANCE IN HIGHER EDUCATION:

The Norstar Conference

The conference from which this Conference Proceeding emerged was designed to convene New York policymakers from government, business, and the higher education community to hear from the experts the national, state, and institutional perspectives on assessment. Drawing upon the Norstar Bank's endowment for an annual conference on excellence in education, the authors of this report developed the conference on "Assessing Performance in Higher Education," which was held June 23, 1988. The first two sections of the report have provided the context for the current trend towards reform in undergraduate education, and have presented four models of excellence and eight approaches to assessment to guide those interested in the issue of improving the quality of higher education. What follows are the presentations of the experts. It should be noted that the presentations are edited transcriptions of the speeches delivered at the conference and should be read, not as post-conference papers for publication, but as presentations to this audience. The speeches in this section are intended to frame the discussion and contribute to the policy process as New York State considers the issues of accountability and assessment.

Opening Remarks

James W. Hall
President
Empire State College
Saratoga Springs, New York

I want to welcome you on behalf of the Rockefeller Institute and Empire State College, cosponsors for this conference. We are also supported by a Norstar Corporation endowment and we are much indebted to them.

This Institute is a very special place. The concept has been to provide a place where persons from government, from the private sector, from the voluntary sector, and from different areas of the state can come together to discuss important, often controversial, issues. A place where your comments are in this room, where you can talk candidly and frankly about the important issues of our time, and a place where hopefully we can reach new understandings.

Today's topic is assessing performance in higher education. This topic certainly is at the center of the agenda in New York State. Ted Fiske, from *The New York Times,* who is here with us today, has pointed to the expected increase of federal interest in education at all levels. Given the scarcity of funds at the federal level and also in the state of New York, it's clear that public demands for a better understanding of what happens in higher education, and for increased accountability from its institutions, is needed as requests for additional funds occur. So it is an important topic that you are gathered to talk about.

The context for this topic is a rich and important one. Probably no nation in the world has made such a commitment to higher learning as this country has from its very beginning. Harvard College, after all, really wasn't sufficient. It sufficed for about 60 years. But soon we needed a number of colonial colleges; during the 19th century we needed to build colleges by every description, following the moving western frontier. Every town wanted to have a college of its own so there would be an opportunity for people to learn and move beyond a grammar school education. We are all familiar with the land grant movement, which broadened the curriculum and brought more people into the university, and the development of the great research universities around the end of the last century, and more recently the coming of the community college, a very important broadening movement in higher learning, sparked by the GI bill and upward mobility. Certainly in New York State the development of a strong independent sector *and* a strong public sector are indicative of the kind of support and commitment that people have made to higher learning.

It has been a dual commitment, with two seemingly irreconcilable aims. On the one hand, there has been a commitment to quality, to strong excellence in our institutions. On the other hand, there has been commitment to access and opportunity. Those two have played against one another throughout the entire history of higher education in America. Today, in New York State, about 70 percent of all high school graduates go on to some form of college and more of them go later on as adults.

In recent years, however, we have seen many reports that question the quality of what those of us in colleges and universities do. And the question of whether *real* access is working for many citizens remains. So questions about whether both quality *and* access are achievable are now widely asked. Certainly, many are asking for improved evidence that colleges are doing the job, that the resources that are given to our institutions of higher learning are used responsibly. They want assurance that we are candid and accountable in reporting individual student performance, in looking at the performance of different academic programs, and even at the effectiveness of entire institutions.

There are a small number of institutions in this country where a number of talented students go. But most students, and many of them are among are most talented, go to institutions that do not carry the names of those colonial colleges. These are the institutions where the workforce of this state is trained and educated. These are the places where the people who will power our collective future have received their educations. I am talking about the Fredonias, the Hartwicks, the LaGuardias, the Hudson Valleys, the Plattsburghs, and as you get older, Empire State College. The performance of these public and independent colleges is really central to the success of this state and its many other institutions.

But how do we know how these colleges perform? How do we measure how they perform? You are senior policy administrators and analysts who come from many different institutions—higher learning, government and other agencies in this state. We are asking you today to engage and deliberate these questions. After all, it is your participation in this beautiful building, which makes this Institute a wonderful idea. At stake ultimately, I think, is the grand American experiment in quality and access. And the whole world is watching how we Americans do. So let's get underway.

Accountability for New York State Agencies

Thea Hoeth
Special Assistant to the Governor for Management and Productivity
Albany, New York

As you share with each other your knowledge and insights about a very timely and important topic, I'd like to share with you some of my experiences. Early last March when I was wearing my previous hat, I joined with some of you to discuss the evaluation of state programs and, in particular, how to design evaluation systems for higher learning. I commend all of you for coming today to bring together your knowledge and expertise in this area. I commend the Rockefeller Institute for causing this gathering.

I would like to take just a bit of your time to talk about some ways that New York State is approaching the improvement and evaluation of its programs. If it's the "Age of Aquarius" in Washington and, of course, the "Decade of the Child" in New York State, then it's the "Age of Accountability" in Albany. In his State of the State message this year, Governor Cuomo said: "Heightened accountability is much more than additional auditors and new attention to internal controls. Throughout the executive branch, I will insist on pervasive, profound, and tangible efforts to improve the efficiency and effectiveness of State agencies."

The Office of Management and Productivity has worked with agencies since 1983 to help them establish their own internal systems for monitoring operations and for creating an environment in which doing more with less is the norm. We work with agencies in the area of internal information systems, which is a critical element in monitoring and controlling agency operations. For example—we are working with the housing agencies to establish accurate data about spending for housing production and renovation; we are working with the Department of State to automate its corporation and uniform commercial code records; and we are helping the Banking Department computerize its audit functions. These perhaps unglamorous steps are nonetheless fundamental. And they begin paying off immediately in smoother agency operations and improved service to the public which, after all, is the point of all this. Those agencies involved will need to build on these initiatives and evaluate what changes or additional steps they need to take in the future.

There have been many other significant process improvements that we have been working with agencies to design. As far as evaluation, I'd like to tell you about the launching of a first-of-its-kind effort in New York State with 15 of the state's largest agencies. We include in that 15 the State Education Department (SED), the State University of New York (SUNY) and the City University of New York (CUNY). The governor is asking these agencies to provide accountable information to display the worth of their programs. We are asking agencies to identify their most important programs, and then to analyze those programs and to measure their effectiveness to determine whether our investments are worthwhile.

The Office of Management and Productivity, the governor's program staff, and the Division of the Budget will study the agencies' replies to evaluate successes or failures. In the process, we hope to get a better picture of the state's overall operation. The vehicle by which this process is occurring begins with agency "report cards" or operations reports, which are

already in and are under scrutiny. The results of this analysis will ultimately be reported to the public and that is an important element in all this.

The inclusion of SED, SUNY and CUNY in the first round of 15 agencies is significant. Judged by financial commitment, education is a top state priority. After all, state support for elementary and secondary education has increased by over 65 percent in the last six years, and SUNY and CUNY rank first and third, respectively, as the largest higher education systems in the country.

What we have found over the years, however, despite those large investments, is that we still have problems with our educational systems and in determining what the state should be getting for its investment. You, involved in education, know better than anyone else the most pressing of the problems: How difficult it is to curtail the dropout rate; to give disadvantaged students additional support; to help make their school years a success; and to provide students with necessary skills to become productive participants in a dramatically changing workforce.

This last problem—providing students with skills to perform well in the workplace—presents employers of the state with as much of a dilemma as it does the students. Last week, in the same room, I participated in another conference which brought together public and private human resource specialists to discuss the public workforce of the 21st century and how we should begin preparing for that. Private employers do not hesitate to complain about the diminished skills of young people entering the workforce. The public sector, I assure you, is no less alarmed. How do we attract and retain quality teachers who get personal satisfaction from their jobs when we offer them little financial incentive? The governor has suggested many ideas—financial bonuses, more educational research opportunities, educational resource centers—but we have yet to come up with a workable system that sufficiently rewards those dedicated professionals.

Let me share with you some highlights from SUNY's and CUNY's operations reports, if I may, concerning how they are addressing the special problems of disadvantaged students who need supportive services and special courses to help them succeed. SUNY has made a special effort to recruit and assist minority students. In its operations report, SUNY notes that the number of minority undergraduate students rose from 7.7 percent of total enrollment in 1976 to 11.5 percent in 1987. The report disclosed SUNY's disappointment, however, with low numbers of minorities receiving graduate degrees. Although this follows the national trend, the governor and legislature responded to this need and increased the Graduate Fellowship Program, which was initiated last year. The university will also focus attention on attracting more minorities and women for administrative and faculty positions, and will work with the Governor's Office of Employee Relations and the United University Professions (UUP) to devise recruitment and retention strategies. The most successful program in recruiting minority students involves a "partnership" between the high schools and the colleges. According to SUNY's report, for example, SUNY students and professors are now involved in about 300 partnerships with high schools, providing such services as counseling and exchanging ideas on curriculum development.

CUNY's efforts have also been ambitious in this area. In its operations report, CUNY shows that the proportion of minorities to total enrollment has more than doubled since 1970, with minorities comprising 62 percent of all students in the university in 1986. I find it

interesting that the profile of CUNY's "freshmen" presents the following picture of the students whom the university seeks to serve: 37 percent of 1986 first-time freshmen were older than 19 years; 17 percent were 25 years or older; 58 percent were women; and even upon college entry, about half of all 1980 freshmen held jobs, with 13 percent working full time. According to the CUNY report, many of these entering students are academically underprepared, with only 22 percent passing three required skills assessment tests and 27 percent failing all three initially. To compensate, many freshmen take remedial courses. In 1980, for example, half of the entering students took at least three such courses in the first year.

In fact, CUNY's most successful effort with these underprepared students has been through the PreFreshmen Summer Program, started in 1985. Conducted in the summer for freshmen enrolling in the fall, this program provides basic skills in reading, writing and mathematics as well as an orientation to college life. The idea, of course, is to beef up students' skills and ease their transition to college. Although still in its early stages of evaluation, the PreFreshmen Program apparently is generating results. According to CUNY's operations report, participation in the program has climbed over the past three years from about 500 to 2,700 students. More than 90 percent of the total 4,600 participants have completed the program and subsequently enrolled as freshmen. These students are displaying marked improvement in basic studies, and setting a precedent—that many of them desperately need—for continued academic success.

Of course, lists of difficulties in the education area continue. And some may wish to see these not as difficulties but as opportunities and challenges. I hope I have conveyed to you the premium this administration places on the need to assess all that we do and its special interest in the education we provide to our children and to our adults. I again commend you for your courage in gathering together today to address these challenges and for the work you do everyday in this area.

Academic Assessment:
The Right Thing for the Right Reason

Joseph C. Burke
Provost, State University of New York
Albany, New York

Thomas A. Becket, in T. S. Eliot's "Murder in the Cathedral," warned that "the last act is the greatest treason—to do the right things for the wrong reasons." Becket spoke of church–state relations in medieval England, but his message has meaning for college–state relations in modern America. The comprehensive assessment of undergraduate education is the right thing for public colleges and universities. But both the states and their state universities should take care that assessment is done in the right way for the right reasons.

The assessment movement will commit the greatest treason to educational reform, if it trivializes the complex and creative outcomes of higher education to fit the inherent limitations of standardized tests. It will dash the highest hopes of its best supporters, if it becomes so mired in methods of measurement that it fails to develop a new and broader vision of institutional quality that combines excellence with access. It will not meet the critical needs of a diverse and democratic society if it homogenizes higher education to suit a monolithic and elitist model of quality that fits only a favored few schools and students. If the assessment movement is to do the right things for the right reasons, it must reform, and not just measure, undergraduate education.

Becket's warning should remind us that the reasons for assessment are critical. Why we assess determines inevitably what to assess and how to assess it. We must answer each of these questions in order, or court misunderstanding or misuse.

The reasons for assessment are as varied as the motives of its supporters. However, two concerns, one external and one internal, drive assessment. One concern stems from external accountability to the state or society for the funds supporting higher education. The other reflects the internal responsibility of the academy to enhance student learning and to improve institutional effectiveness. The coupling of these two concerns constitutes a fragile combination—an essential tandem with inevitable tensions. The constant and continuing commitment of both the capital and the campus to assessment requires a delicate balance of both concerns.

External compulsion from the capital can only produce passive resistance on the campus. Passive resistance on campus can only produce external compulsion from the capital. Yet campus commitment, not external compliance, is critical to assessment. Campus creativity comes from internal commitment, not from external commands. Too much external pressure can produce campus paralysis. Too little pressure can produce campus complacency. The right combination for both capital and campus balances care with concern, patience with persistence.

Both capital and campus must recognize that in assessment, external accountability and internal responsibility are inseparable. Only an assessment system that demonstrably enhances

student development and improves institutional performance can satisfy both external accountability and internal responsibility.

Though there is much debate about the directions and details of assessment, experienced practitioners agree that assessment, if it is done well, is expensive and exhausting—expensive to the state and society and exhausting to faculty and staff. Case studies suggest that assessment is like an iceberg, in the sense that most of the work and much of the value lies hidden beneath the surface. Neither the capital nor the campus can afford to measure everything that moves and test everything that stands still. Assessment must be comprehensive but its results must also be comprehensible and cost-effective. Speed is not a measure of success in assessment, for it usually produces superficial results. It purchases little of value at the cost of undermining the credibility of assessment on campus and in the capital.

The general public and state officials quite naturally wonder why assessment should be so costly and time-consuming. We should remind them that the questions we ask determine the answers we get. If we ask small questions, we can expect short, simple and swift answers. If we ask complex questions, we must expect complicated answers. Questions concerning the learning of thousands of very different students and the institutional effectiveness of a vast variety of colleges and universities on the multiple outcomes of undergraduate education are complicated questions. The answers involve assessment of institutional missions in terms of campus performance in relation to the needs of their particular students and that segment of society they are supposed to serve.

Assessment must begin with an appraisal of the appropriateness of institutional mission and the goals of the curriculum—skills courses, liberal learning, and specialized education—and of the range of the academic and student support services in relation to the needs of the students enrolled. It can end only with a comprehensive evaluation of the extent to which these ends are achieved. The only thing simple about assessment is the answer to the question of why it is so time consuming and costly? The simple answer is that the questions of assessing student development and institutional effectiveness are incredibly complex.

But assessment must grapple with a more fundamental question. The true test of the assessment movement will be whether it can develop and establish a new definition of institutional excellence and quality in undergraduate education—a definition based on inclusion rather than exclusion, on performance rather than prestige. The traditional definition of institutional quality prevalent on campus and in the country is monolithic and elitist. Assessment subverts this vision of excellence. The question is whether the supporters of assessment will have the courage to replace it with a broader view of quality that suits the higher educational needs of our diverse and democratic society.

The real revolution in the assessment movement is the threat that excellence will no longer be considered the exclusive preserve of the rich and famous institutions. Indeed, some of those institutions may be assessed as less than excellent when performance rather than prestige is the criterion for success. Surely, it is significant that two of the most prominent institutions in the assessment movement are Alverno College and Northeast Missouri State and not Harvard and Berkeley.

The traditional view of quality in higher education is an amalgam of what Alexander Astin labeled the reputational, resource, and selectivity models. According to this view, the quality of colleges or universities depends on their prestige and possessions rather than their performance—on the quality of the students admitted rather than on what they learn while on campus. Conventional wisdom assumes that the "best" colleges and universities have the most money, the most faculty with the most publications, the most library books, the most programs, and the most students with the highest SAT scores.

This model of quality presumes that the greater the resources or the "inputs" the better the performance or the products of a college or university. It says nothing about student development or institutional impact on students. It confuses quantity with quality and conceives of the operation of a campus, like that of a computer, as mostly a matter of good in–good out.

Recently, states, society and even some scholars have begun to question the appropriateness of this narrow notion of quality. Scholars suspect the validity of assessments based on assumptions and assertions rather than on proof and evidence. Howard Bowen, one of the leading authorities on higher education, a few years ago studied the correlation between funding per student and student learning in leading public and private colleges and universities across the country. He found little relationship between the quantity of campus funding and the quality of undergraduate learning. The only conclusion he reached was that institutions of higher education always spend all of the money they receive or raise.

The resource model of quality insults faculty and staff, for it assumes that the success or failure of a college or university depends mainly on what they receive in students and support rather than on how well they perform. The selectivity model also shortchanges students, for it suggests that their success or failure depends mostly on what they know before they enroll. The resource model also conflicts with the public's disbelief that quantity funding automatically guarantees quality performance. The public has seen in recent years report after report questioning the quality of undergraduate education despite sizable increases in funding.

Finally, this monolithic and elitist model of excellence seems unrealistic and undemocratic, for it sets a standard that makes the pursuit of excellence an impossible dream for most colleges and universities and for most students. The reputational and resource model of excellence segregates schools and students into two classes—the favored few and the mediocre many.

The feeling is growing throughout the country, especially in state capitals, that this traditional view of quality is fatally flawed. Increasingly, public officials are arguing in the name of accountability that the quality of colleges and universities should be judged on their outcomes rather than on their incomes. And more educational experts are asserting that the true test of institutional quality of a school should be its contribution, or the value added, to the intellectual and personal development of its students from admission to graduation. Both groups agree that the quality of colleges and universities should be judged not by their capacity to recruit the brightest students or to raise the most resources but by their ability to assist their students to become the best they are capable of being. This value–added approach can supply the missing link between equality and quality, access and excellence.

The dilemma of American democracy has always been how to reconcile equality and quality? How to shape a diverse and democratic society that is both equal and excellent? How to ensure equality of opportunity for all Americans and yet spur superior performance in a pluralistic society where individuals differ widely in abilities and circumstances? At times, our search for both quality and equality seems an impossible dream. We waiver between these two ideals, shifting first to one and then to the other. Some fear our resolve for equality will result in the "mediocrity of the many," while others feel our push for quality will produce the "elitism of the few." Despite their differences, these divergent views share the common but mistaken belief that we as a people can seek one of these goals only at the expense of slighting the other.

John Gardner, the founder of Common Cause, in his book, *Excellence*, wrote eloquently on this subject of equality and quality. His book should be required reading in every public college or university in the country and should become an important document in the debate on assessment. Gardner reminds us that our crusade for both equality and excellence need not be a search for an impossible dream. To Gardner, equality and excellence were not the source of an unsolvable dilemma but of a dynamic interaction where one goal enriched the other. Gardner saw education as the indispensable link between equality and quality.

In an earlier age, an elementary and then a high school education for most Americans was adequate to ensure that our society was both equal and excellent. But the growing demands of learning and life in a society based increasingly on knowledge and information require that a growing proportion of Americans benefit from higher education. Despite the bickerings of Bill Bennett, higher education has a public benefit for society as well as a private benefit for students.

Economic and demographic trends will demand that more citizens must receive more and better education at the associate and bachelor's levels. And minorities—especially blacks and Hispanics, who have benefited the least from education at all levels—will comprise a much larger proportion of the work force and require more higher education. Student bodies on most campuses will become ever more diverse—more part-time, more minority, more mature, more handicapped. The residential college in a rural setting filled with recent high school graduates with good educational preparation and clear career goals has become the exception rather than the rule. Yet the conventional view of institutional excellence in higher education lingers on though the conditions that fostered it have long since gone.

For the State University of New York, the goals of quality and equality, access and excellence, represent a challenge—not a choice. SUNY believes that a public university that is elitist and exclusive is a contradiction in terms. No public university should accept the aristocratic assumption that the only entree to excellence is through exclusivity—that excellence is achievable only by limiting access. Neither should a public university accept the contrary thesis that educational inferiority is the inevitable consequence of access—as though most students and most institutions can never aspire to excellence, for quality in higher education is by nature reserved for the favored few schools and students.

A value-added approach to assessment combines access with excellence by insisting that each student and each institution strive to become the best they can be. This approach seems appropriate for the State University of New York, which was founded 40 years ago with the original motto: "Let each become all he (or she) is capable of being."

Assessment and value-added seem the right things for SUNY. But before prescribing a monolithic model of assessment on the biggest and most diverse university in the world, we should remember the quip of H. L. Mencken—that for every complex problem there is a simple solution that's wrong. No single assessment method can fit the SUNY system. Our university enrolls 333,000 undergraduate students, nearly 40 percent of whom are part-time; 38 percent of the new students each year are transfers. The 64 campuses of SUNY are as diverse as the students they enroll. They include community colleges, technical colleges, specialized colleges, statutory colleges, comprehensive colleges, and university centers with a wide range of educational missions, academic programs, and admission standards.

The diverse needs of New York State demand this diversity of campuses in its state university. Any assessment effort must enhance, not diminish, the distinct mission of each of these campus categories. No monolithic model of assessment mandated from Albany can fit this range of institutions with their diverse missions.

Despite the differences among SUNY campuses, all share a common commitment to educational excellence and institutional assessment. SUNY was built on the belief that each of our campuses must aspire to educational excellence in terms of its performance of its designated mission. The test of excellence in undergraduate education for each of our campuses is its contribution to the intellectual, social, and personal growth of its students from admission to graduation.

We are trying to take advantage of the system and of its categories of campuses by collecting comparable data on student perceptions of the quality of their undergraduate experience, by fostering experiments with different approaches to assessment, and by sharing throughout the system the experiences of our campuses in evaluating institutional performance. The size and diversity of SUNY allows the collection and analysis of a wealth of comparative data from all types of students and campuses.

The central administration in cooperation with the campuses has instituted on a three-year cycle the survey of the American College Testing Service that assesses student satisfaction with academic programs and campus services. The survey results have been especially useful both on campus and in the central administration in comparing the student ratings of services among campuses in the same category of SUNY institutions. The results have been used by the campuses and the central administration in preparing program proposals and budget initiatives.

The categories of institutions within SUNY also allow special assessment efforts through cooperative and consortia arrangements. Though a number of these efforts are under way, I will discuss briefly only a few assessment programs at the arts and science colleges. Of course one of those colleges, Empire State, our host institution today, has long been involved in a unique form of assessment. Indeed, it offers a perfect conjunction of individual student development and institutional performance, since that college tailors its academic programs to suit the individual needs of each student.

I could say much more about this fascinating process of assessment but simple justice dictates this be done by the founding president of this unique college, who is our moderator. Instead, I will concentrate on two programs, one at Plattsburgh—where I spent twelve years as

president—and the other at Fredonia. Both of these projects are currently supported by grants from the Fund for the Improvement of Post-Secondary Education.

The Plattsburgh experience, and other case studies, suggests that effective assessment programs are not built on a single action but on a succession of small successes over time. Theologians say that grace presupposes nature. If the spirit is not receptive, the soul cannot be saved. The same goes for assessment—the credibility of, and therefore the commitment to, assessment by faculty, staff, and students must be built over time. All groups must learn gradually that they derive benefits from assessment and that assessment will not be used to punish them. This last comment reveals my bias, and one that was made a first principle at Plattsburgh, namely, that assessment would be used exclusively for diagnostic purposes—to improve performance and not to penalize. The purpose of this principle was not to make faculty or students comfortable with assessment, but to win their commitment to assessment as a way of improving performance. We wanted candid and open, not closed and defensive, responses to the penetrating and probing questions involved in assessment.

The commitment of faculty, staff and students is critical to the development and implementation of a comprehensive assessment program. Even if a good program could be bought off the shelf, and it can't, the full participation of faculty is essential to success. Developing a sense of ownership through participation is the best way, not only to defuse the opposition of faculty but to win their continuing support and creativity for assessment.

Assessment had a long history at Plattsburgh before I proposed a value-added program in a speech to faculty in the fall of 1984. We had begun an "Outcomes Project" in 1974 which developed gradually toward a full-blown assessment program. The project began with student surveys for freshmen and seniors. Freshmen indicated their expectations for intellectual, social, personal, educational, and professional growth. Graduating seniors used the same categories to assess their perception of growth during their college years. Both questionnaires also probed student perceptions of their abilities on a range of intellectual and social skills and their intellectual and creative interests. Each year the results of both surveys were summarized by the academic majors of student respondents compared to the college-wide average and sent to all academic departments for comment.

This information stimulated revisions in department curricula, in the college's general educational programs, and in campus services for students. This effort has produced a sizable longitudinal data base that remains in use today. Experiments were also tried with specialized and standardized tests in basic skills, general education, and academic majors.

Without that long and largely positive experience, faculty approval of and, more important, participation in the value-added program would have been unthinkable. That new program, begun in 1984, included the development of a revised "Academic Development Survey" based on the original Outcomes work. It also proposed administering ACT tests to freshmen and juniors. Transfer students from community colleges also would take ACT tests, which would allow for comparison between native freshmen and transfers. Finally, it was intended that all students would take a nationally-normed exit exam, such as the Graduate Record Examination or the National Teacher Examination, to measure the degree of student learning within the academic majors.

It was the search for more appropriate examinations in the academic majors that led to the submission and approval of a grant from the Fund for the Improvement of Post-Secondary Education (FIPSE) to develop comprehensive assessments in academic disciplines. This project was conceived and led by Tom Moran at Plattsburgh. Plattsburgh's FIPSE project involves four academic departments in five SUNY colleges of arts and science. Faculty teams in each of the disciplines with representatives from each of the colleges will develop comprehensive programs for each of the four academic majors. The assessment programs for each of the disciplines and the experiences gained in the process will be shared widely in the SUNY system. The hope is to expand such consortia arrangements into other categories of SUNY campuses and to develop similar assessment programs for other academic majors.

A second grant from FIPSE, this one to Fredonia, is being used to develop a comprehensive assessment of the general education program at that college. The Fredonia project is faculty focused. Campus committees, composed overwhelmingly of faculty, have developed creative ways of measuring the educational outcomes of Fredonia's developmental general educational program. The project will evaluate student growth in critical thinking, reading, writing, problem solving, cultural awareness and social values through the use of an elaborate set of specially designed tests. The project will test incoming Fredonia freshmen and matched samples of juniors, and also a comparable group of freshmen and juniors at other institutions.

Since Fredonia is a member of the Plattsburgh Consortia, the two projects in tandem offer the possibility of developing a comprehensive assessment approach that would include basic skills, general education, and specialized education in the major. Such a project could include the ACT Student Survey administered in all SUNY institutions every three years.

The Fredonia and Plattsburgh projects represent only two examples of the assessment efforts in State University. Two system-wide committees chaired by myself as Provost, have recently been appointed to encourage assessment within SUNY. A Committee on Assessment is composed of experts on assessment from all categories of SUNY campuses. A Committee on Institutional Performance with Trustees, Presidents, and Students will consider the broad policy issues involved in assessment.

Though we have not moved as far and as fast on assessment in SUNY as some of us would like, the system has developed a considerable potential for assessment while avoiding the major pitfalls. The approach to assessment in SUNY has been inductive rather than deductive. The movement for assessment has been centered on the campus and not in the capital and has been built on internal commitment rather than external compulsion. The measures used to assess are suited to the multiple outcomes of undergraduate education and avoid simplistic statistics and single scores. Assessment is used to improve and not just measure performance of schools and students. It has encouraged the emergence of a new notion of quality that combines excellence with access and assesses institutional performance in relation to institutional mission. SUNY has not done all the right things. But what it has done, it has done right, in the right way, for the right reasons.

National Perspectives on Assessment

Carol M. Boyer
Senior Policy Analyst
Education Commission of the States
Denver, Colorado

Introduction

The state-mandated assessment of student outcomes has emerged as an unmistakable feature of the higher education landscape, with growing numbers of states requiring their colleges and universities to develop and implement campus-based assessment programs. More significantly, growing numbers of states are signalling their seriousness about the issue by linking the responses of individual institutions to eligibility for incentive funds or other tangible state rewards. What I am going to attempt to do (for the next hour or so) is to provide a coherent framework for thinking and talking about state-based approaches to assessment. More specifically, I plan to do four things:

(a) set a broad context for a discussion of state-based approaches to assessment;

(b) describe the purpose of and motives for conducting a series of five Education Commission of the States (ECS) case studies of state-based approaches to assessment in undergraduate education;

(c) discuss several overriding "themes of implementation" that seem capable of summing up a great deal of experience—and literally reams of interview notes and file drawers of related case-study materials; and

(d) draw some lessons learned about state-based approaches to assessment—some lessons in common for state and institutional implementation of assessment.

Setting A Broad Context

In the last 10 years or so there has been a slow but perceptible shift at the state level from concerns about financial accountability to concerns about academic accountability. With this shift has come a new emphasis on reviewing academic programs as well as linking state budgetary procedures more directly to institutional missions and articulating institutional missions more clearly. By the mid-1980s, improving the quality of undergraduate education was beginning to emerge as a political as well as educational issue. The series of now-familiar national reports issued in late 1984 and early 1985 (NIE, AAC, Bennett) mirrored the concern about K-12 that had followed the publication of *A Nation at Risk* and caught the attention of the higher education community and of governors and other state leaders across the country. At about the same time the media began calling everyone's attention to students' declining test scores and their inappropriate preparation for entry-level positions after college, so strong-minded governors in a few states picked up on these concerns and led national efforts about what states and state leaders can do to improve undergraduate education. State-level

discussions about improving undergraduate education are now framed by their reports. Regional and professional accrediting agencies also started getting into the act, becoming more outcomes oriented in their approach (e.g., revised Southern Association of Colleges and Schools (SACS) criteria).

In the past 2-1/2 years or so, then, the context within which discussions about "state-level reform of undergraduate education" take place has changed and it has changed dramatically. A few examples: In late 1985, ECS surveyed state-level academic officers about state initiatives to improve undergraduate education and found a "diverse array" of state initiatives directly tied to quality improvement. The initiatives were classified into 21 different categories, covering subjects as diverse as admissions standards, high school/college transition, "value-added" assessment of student outcomes, alternative resource allocation and funding mechanisms, special incentive funding for undergraduate education, and blue-ribbon commissions on higher education. About a year later (January 1987), ECS again surveyed state-level academic officers and found that concern about improving undergraduate education was increasingly being translated into concern about assessment. We also found that state leaders expected interest in assessment to increase in the coming year or two. And that's happening: 2-1/2 years ago, only a handful of states had formal initiatives labeled "assessment." Today, some 12-15 states have some sort of assessment initiative in place, and twice that number are seriously considering assessment.

It is important to ask why all this interest in assessment, especially since it was essentially a footnote in most of the recent national reports. Let me suggest five reasons:

(a) Assessment *can be* a powerful lever for institutional change in accomplishing all those other good things called for in the national reports. In fact, many of the issues of implementation raised by discussions of assessment are equally applicable to almost any type of management or program intervention.

(b) Assessment can also be a powerful institutional tool for inducing faculty to reexamine their curricula. Many institutions report that reviewing curricula from an outcomes or assessment perspective and carefully thinking about possible sources of evidence, in themselves, helped to bring about needed curricular improvement.

One institution, for example, reports that a significant impact of efforts to design "exit examinations in the major" is that it forced faculty to rethink the structure and intended outcomes of their curricula. As a result, changes in curriculum occurred even *before* any outcomes data were collected and disseminated.

(c) Assessment attempts to break the cycle of people talking in circles and past one another, and to get down to issues that nobody has a good handle on.

It's very easy to talk about improving undergraduate education in the absence of concrete information. Assessment provides a way of talking about improving undergraduate education in a very different fashion—one that involves further specification of the types of students involved, of the nature of the intended impact, and of the ways in which evidence of attainment is exhibited and assembled.

(d) Assessment is also quite legitimate in maintaining public confidence outside higher education in what has become an increasingly costly enterprise.

In recent years, we have added institutions, programs, different kinds of student clientele—the list goes on and on. No wonder the general public no longer understands what higher education is about. No wonder that in an era of greater accountability and limited (sometimes declining) resources, state leaders are asking for concrete evidence that their resources are being well-spent and that college does make a difference.

Higher education is also being sold on different grounds these days—linked to access, economic development, and international competitiveness. The public believes in higher education and therefore expects higher education to play an essential role in meeting the demands of a changing work force and society. This expectation, in turn, has led to a change in resource philosophy at the state level and to a change in what accountability means—from tell us what you did with the money to show us end performance or results.

(e) And finally, when you come right down to it, the kinds of things outside agencies want are really not all that incompatible with what most faculty want except that they come from a very different perspective.

Besides, it's important to acknowledge the historically important role of outside agencies in providing external pressure and focusing institutional attention on important issues. It is difficult to think of a single major reform in higher education that was *not* initially stimulated by external pressure, even though higher education eventually claimed it as its own idea (e.g., the G.I. Bill, affirmative action). Still, too much external pressure could destroy the entire improvement effort and turn it into accountability, so balance is key.

State-Based Case Studies

In spite of the growing interest in assessment, the actual effects of state-mandated assessment remain uncertain. To investigate them, Peter Ewell of the National Center on Higher Education Management Systems (NCHEMS) and I recently conducted a series of case studies of assessment initiatives in five states: Colorado, Missouri, New Jersey, South Dakota, and Virginia. We wanted to gain a better understanding of how state-based assessment initiatives were unfolding—to determine what state leaders wanted to accomplish and what institutions were actually doing in response. We specifically chose emerging states (i.e., those with a relatively recent mandate) and states that differed markedly in terms of the structure and content of their assessment initiatives (e.g., governor's initiative in Missouri, legislation in Colorado, state agency initiatives in Virginia, New Jersey, and South Dakota). Additional differences among state-agency initiatives:

- In Virginia, the state agency called for institutions to develop assessment programs that reflect their distinctive institutional missions but backed up that call with a Senate resolution.

- In New Jersey, the initiative was a creature of the Department of Higher Education building on their experience with the N.J. Basic Skills Assessment Program. Theirs is a centralized, top-down approach with faculty representation on statewide committees.

- In South Dakota, the Board of Regents attempted to take a well-known institutional assessment model (Northeast Missouri) and impose it statewide. That didn't work, so this past summer they did a complete about-shift from statewide value-added assessment with common instruments to calling on institutions to develop their own approach to assessment.

Our interest in conducting these case studies was prompted by several other motives as well:

(a) The need for "rumor control"—there are several myths about assessment floating around, dangerous myths (e.g., that the only states that get involved in assessment are those with weak higher education systems . . . that states get involved without putting money behind it . . . that state-mandated assessment necessarily involves standardized testing or a "rising junior" component; and so on). It is important to put these myths to rest.

For example, since the "assessment movement" began almost three years ago, only two states have introduced a program that includes a common standardized test (Texas, with its new basic skills assessment program, and New Jersey, with its comprehensive College Outcomes Evaluation Program that includes the development of a common instrument to assess "general intellectual skills"). The other states that use common standardized tests are Florida, Georgia, and Tennessee—and all three got into the business of assessment long before the assessment movement began.

(b) We hoped for some generalizability in the findings from the five states and looked for patterns across states that others could learn from, as we were aware of a growing need for "good" policy.

(c) Our interest in whether assessment is different from other kinds of state initiatives. Typical institutional reaction: "this is going to be just like a cost study or program review." State leaders are saying that assessment is a different kind of initiative—one in which they are trying to stimulate campus-based action on the part of their institutions. (Irony: State leaders say they want to empower institutions and foster formative behavior, but how do you mandate a formative process?)

(d) The apparent tension between assessment for accountability and assessment for institutional self-improvement—and the notion that these are two completely different worlds (i.e., a zero-sum game) while state leaders are saying that the two go hand in hand.

So here is what we did: We spent approximately one week on site in each case-study state interviewing governors, legislators and their staffs, state higher education executive and academic officers, and a cross-section of faculty and institutional leaders from public colleges and universities. Our principal question was: To what degree is the state's intent being translated into appropriate action at the institutional level?

Themes of Implementation

First, it is important to recognize that state contexts are vastly different and to note particular differences in the resource base (tax + effort), in governance structure (e.g., "part of battleground" in Colorado) and in terms of the "climate" for higher education (e.g., education governors in New Jersey and Missouri). Such differences in state context interact to constrain and shape the types of initiatives that can be undertaken. They also provide "language" (e.g., "accountability" in Colorado, "folk implementation" in Missouri, etc.).

Second, it is important to point out the differences across states in terms of state support for the initiatives (convenor and technical assistance as well as financial support).

But, despite these differences in state context and state support, we did begin to see some patterns recurring across states. These patterns can best be summarized in terms of five "themes of implementation." Each of these patterns has implications for institutions currently deciding how to respond to a state mandate (see article in *Change* Magazine, July/August 1988).

The salience of past or parallel experiences. Assessment is an unfamiliar exercise to most state leaders and policymakers, so they seek a "parallel experience" to guide action. For legislators, the obvious candidate is past action in the K–12 arena. We found many references in language (Missouri and South Dakota), but a downside in misunderstandings ("accountability" in Colorado). The other possibilities were the prior experience with implementing similar kinds of programs (e.g., the New Jersey Basic Skills Program extended to COEP in terms of the process of execution and implementation, committee structure, who does what when, etc. Another possibility is the use of existing institutional models (e.g., NMSU as ready–made model in Missouri and South Dakota).

We identified those lessons for institutions that relate to this theme:

(1) It is inevitable that such models will be used, but it is important to recognize that this is going on.

(2) Be aware that state leaders often intend these prior experiences more as "trial balloons" than as definitive approaches to state policy.

(3) Recognize that state leaders can be talked out of it. Help them translate the experience and shape the assessment initiative (e.g., "educating the sincere amateurs" in South Dakota).

The primacy of communication. Overall, the thorniest problems in implementing state–based assessment initiatives arise from unclear communication and miscommunication. We found that virtually every kind of miscommunication that could happen, did happen. It is important to recognize that communication between state and institutional leaders is, by definition, political. Entry of the state into a previously academic dialogue can thus easily result in unintended polarization. It can also lead institutions to search for "hidden agendas" and consequently to misunderstand what state leaders actually want. Other communication difficulties have to do with the particular language used (e.g., "accountability" in Colorado, "nonanecdotal, quantitative" in Virginia), the lack of a common vocabulary, the timing of

communications (long silences in Virginia and Colorado, irregular patterns, etc.), and the particular forms of communication used (formal vs. informal, "folk implementation" in Missouri, lack of clear document trail, etc.).

Lessons for institutions:

(1) Avoid searching for "hidden agendas" and "seeing what you want to see" in the content of a state initiative ("fondest hopes, worst fears" phenomenon).

(2) Initiate, don't just receive. Establish and maintain an ongoing dialogue with state leaders and policymakers rather than second-guess their intentions or jump to conclusions.

(3) Communicate about assessment and related activities to the state through multiple channels. Visibly use assessment data, both within and outside the institution, to support and to communicate major policy decisions.

(4) Start communicating assessment results through existing statewide data collection/ reporting mechanisms, *even if* assessment results are not explicitly required.

(5) Be realistic in communicating institutional concerns about multiple and inappropriate state-reporting burdens.

(6) Communicate regularly with other institutions in the state about progress being made (and obstacles being encountered) in responding to a state initiative; share ideas and resources, address issues of mutual concern, and so on.

Academic and political worlds. There are lots of differences between these two worlds. One area of substantial tension has to do with timing.

Institutional timetables are long and conditioned by the particular rhythm of the academic calendar. For the most part, state leaders and policymakers don't recognize this (e.g., Virginia, Colorado). They are largely unaware of how long it may take for faculty governance structures to act or react. They don't understand that there may be long "down periods" in academic settings during which no substantial action can occur. Political timetables are tied to terms of offices. Political leaders are concerned about the delivery on promises made during campaigns (e.g., even in New Jersey, Governor Kean is running out of time).

Other timing difficulties arise through different "rhythms" in the academic and political calendars (e.g., biennial budget "window" was the only opportunity for action in Virginia).

Lessons for institutions:

(1) Be aware of the many constraints on political timetables and be realistic (but not righteous) in communicating the constraints on your own.

(2) Become aware of the other inherent tensions between the academic and political worlds and act accordingly—develop a sensitivity to the constraints placed on behavior in the two worlds.

The "press to test." Regardless of the actual shape of a state assessment initiative, we found enormous pressure of discussion toward the alternative of common standardized achievement testing. For policymakers, this is often the first, visible posed alternative (though not necessarily what they want to make happen). For institutions, this is what they are "sure" has been state's agenda from the very beginning. Where common testing is an explicit part of a state initiative, it tends to absorb more than its due share of attention and energy—and sometimes the lion's share of resources.

Lessons for institutions:

(1) Be aware that common standardized achievement testing may initially be proposed by state leaders as a "trial balloon" and respond accordingly.

(2) Don't let issues about common testing so politicize discussions that they obscure those other components of a state initiative that *are* consistent with institutional purposes (e.g., faculty member in New Jersey: "You can't stop it, but you can shape it").

A "train on its own track." A particular implementation dilemma encountered was the tendency to isolate the assessment initiative from other existing state-level programs and reporting requirements such as mission and program review. Granted, our case-study states were ones that had explicit initiatives, but pursuing assessment as a distinct and identifiable activity can place heavy, often contradictory burdens on institutions (e.g., Colorado H.B. 1187 provisions).

There is also some fear that assessment will become a separate bureaucratic enterprise, with a separate set of compliance requirements and with no direct tie to curriculum or improvement.

Lessons for institutions:

(1) Consider taking a positive stance—that is, getting out ahead of the state-mandated initiative with a range of locally designed programs, then "selling" these programs as consistent with the evolving state mandate. (Several "wait-and-see" institutions said next time they would be proactive.) States seem willing to listen to a wide range of local options if intelligently sold, but states (and rightly so) may have little patience with lack of institutional response without "clear" direction.

(2) Whenever possible, develop assessment programs that will gain reasonable faculty ownership and that are designed primarily to meet local institutional needs.

(3) View institutional assessment plans as evolving documents; modify and improve them as appropriate.

(4) Visibly use assessment results to inform institutional change and academic improvement.

(5) Seek additional outside resources; compete with other institutions for explicit state-based resources dedicated to implementing assessment programs, and for funds from FIPSE and other agencies or foundations.

[A word of caution: Lessons such as these often sound simplistic and common sense. This reminds me of a colleague who summed up her review of the organizational literature on leadership and management behavior with this simple phrase: "Don't do stupid things!"]

These themes were present in varying degrees in all five case-study states, and each colored and shaped the manner in which the assessment initiative was played out. What about the "bottom line" of institutional response? We found that, in general, institutions tended to respond in one of three ways:

- A few institutions chose initially to resist the initiative. That generally proved unsuccessful and in doing so the institutions tended to provoke direct action on the part of state agencies to achieve compliance.

- A second category of institutions, by far the majority, took a "wait-and-see" attitude, reacting only to those things explicitly asked for by the state (and only when asked), and sticking closely to what they thought the state was looking for.

- A final category of institutions took assessment as an opportunity to accomplish the local agenda (e.g., South Dakota State University, Metro State in Colorado, Northwest and Southeast Missouri). But doing so requires active leadership at the institutional level and may require "selling" the local initiative as consistent with state guidelines (e.g., "declare victory"). It may also entail the risk of getting too far ahead with the possibility of a bureaucratic "cutoff" (e.g., Metro State).

Some Lessons in Common

In closing, let me suggest the following practical guidelines or lessons in common for both state and institutional leaders.

- *Capitalize on existing information*. Most colleges and universities collect far more information and know a great deal more about what happens to their students than they think they do. There is information all over the place—information that is neither coordinated nor pulled together centrally, largely because there is no incentive to do so.

  Here is where the state can come in, by creating the incentive for pulling together existing information. Registrars' offices, testing centers, placement offices, counseling centers, and departmental offices are all good places to look for existing information.

  Start by taking an inventory. Compiling information from various sources to reveal a composite picture of student experience is a good first step toward implementing assessment.

  The state-level equivalent has to do with what institutions know about themselves. One of the roles a state can play is that of convenor, by providing the opportunity for individual institutions to learn from one another, to share ideas and resources, and so on.

- *Utilize existing "points of contact" with students.* Take a look at those places where you are already collecting information for some other reason and piggyback assessment on top of that.

  As an example: an institution that was assessing writing—and doing it developmentally. The students were required to write an essay, which was graded holistically, when they entered the institution and another essay at the end of their freshman year. The interesting twist was the topic of the essay: "What are your expectations for college life and what are the major strengths and weaknesses of this place as a learning institution?" They got some very interesting stuff quite aside from the fact that they were able to assess students' writing.

  What is the state-level equivalent? Take a look at the potential of existing mechanisms such as planning or program review. Look for places where you are already collecting data from institutions. And look for ways to piggyback some outcomes or assessment data on top of those mechanisms.

- *Create a visible center for assessment activity.* Assessment can make a powerful statement about an institution's concern for the development of its students. To be effective, this statement must be organizationally visible.

  At the same time, there needs to be an organizational home to integrate the assessment information and to provide some technical assistance to faculty and departments.

  The most successful assessment programs designate a particular office or staff-supported faculty committee for housing and directing assessment activities across the campus. They fund it adequately, and they provide it with powerful channels for disseminating results both within and outside the institution.

- *Experiment with pilot projects.* Don't go into the assessment business "whole hog" at first. Take the time to examine some of the unanticipated consequences of what might occur. Take the time to find out what works and what doesn't.

  There are some positive aspects of pilot programs quite aside from guarding against disaster. If you provide opportunities both for institutions (if you are the state) or for academic departments (if you are the institution) to experiment with pilot projects, you will have the opportunity of choosing those pilot projects very carefully to provide future advocates for an assessment program or initiative.

  If, as I think some of the best institutions in state systems have done, you encourage those who already have an interest in assessment, all of a sudden the state isn't telling the institutions what to do anymore, and the administration isn't telling the departments or the faculty what to do. It is institutions selling institutions (or faculty selling faculty) on the benefits of that kind of an endeavor. In short, bet on the strong.

  On any campus, assessment is a novel and controversial endeavor. Faculty will be apprehensive, administrators defensive, and students indifferent. Moreover, untried

methods will be proposed, the consequences of which are unclear. Beginning with a series of varied pilot programs, using volunteer units and departments, allows a number of approaches to be explored simultaneously. And faculty in successful pilot programs can serve as powerful advocates for assessment across the campus.

- *Use the results in identifiable ways.* No process of this kind is going to be taken seriously if the results aren't taken seriously. If it just becomes a compliance exercise of collecting and reporting assessment information, then it is not likely to result in any kind of change.

  There needs to be some mechanism that encourages institutions to build assessment information into planning or into budgeting in a visible kind of fashion—and in a way that is directly tied to institutional accountability.

  Assessment will not be taken seriously on or off campus if its results are not taken seriously. If a periodic report is all that is produced or required, and if assessment results do not show up visibly in decisions about curriculum, academic policy, and budget, then the whole process will fall short of realizing its full potential.

In summary, developing an appropriate approach to assessment (at the state or institutional level) is an art that depends on a clear understanding of what is intended, information about available instruments and about the experiences of other institutions or states, and accurate diagnosis of the organizational and political climate. As in any other art, there is no single best way, but it is hoped that the results of the ECS case studies and the lessons learned from them will inform state-based approaches to assessment in undergraduate education that are just getting under way.

Public Perceptions of Higher Education

Edward B. Fiske
Education Editor
The New York Times
New York, New York

I've been asked to address the question of American perceptions of the value of higher education. It's one of those topics that reminds me of the story they tell about Oliver Wendell Holmes who was riding on the old Pennsylvania Railroad and the conductor came into the car where Holmes was riding and started to collect the tickets. Justice Holmes reached into his pocket to find his ticket, started looking all over and began to panic. He finally got up and got his suitcase down from the rack over his seat and looked in it and finally got down on the floor, on hands and knees, and was thrashing around to find his ticket. As the conductor drew near, he realized who this was groveling around on the floor of the train, and was horrified and told Justice Holmes to get up, saying "I'm sure my superiors of the Pennsylvania Railroad can trust you to send in your fare when you get to your destination." Holmes looked up and he growled back at the guy—"You don't understand the situation: the question is not whether I'll pay but the question is where am I going?" I feel a little bit like that on this subject.

The first thing you have to say: there is no doubt at this point we value higher education and probably we value it as much as we ever have. As evidence of that, look at the admissions picture in the last couple of years, including the most expensive selective schools. People are lining up to pay $20,000 a year at the better colleges. I have to admit even though we write about this, we really don't understand what is going on. It's sort of the big unknown question. The admissions picture is against what the demographics hold; we certainly have a decline in the number of 18-year-olds. Yet even at schools that only cater to the traditional market, there is enormous pressure to get in. Partly, I guess, it's a response to the marketing colleges have done—very sophisticated about recruiting.

I think one of the elements that has not gotten as much attention as it should have is the fact that now we have the first generation of college applicants where substantial numbers have college-educated parents and who grew up always expecting to go to college. What you see now is the children of people who participated in the vast expansion of higher education in the 1960s—the years the State University of New York grew. I've never seen anybody spin this out—I'd love to see colleges look at their own experiences here—what we know about the college education of students today and that of students earlier.

So I think that's a factor. And then the most important thing is that people are buying *up*. People have decided that higher education is a good investment and they are trying to get into as good a college as they can and they are willing to pay and that's why there doesn't seem to be much elasticity in the pricing of the more selective private colleges.

I think people also intuitively understand that the future is going to be different. As Adam said to Eve on the way out of the "Garden of Eden"—"we live in an age of transition." The days are over when you can go and get a college education and store up a certain amount of knowledge and that will last you over a career. I think people understand that and we are

now in a situation where it's more a learning to learn—you people have all heard this before—but it's getting across to people. People are scared about the future—they are nervous about the future—that's why education is going to be an issue in the presidential campaign. Not education per se, but it is a shorthand way to talk about the future and the world. There is probably one issue in the current campaign that is beyond Reagan, and education is a shorthand for talking about kids and the future when symbols of that are hard to find. People understand this. They understand that the United States is now in the kind of situation that Japan has always been in—at least since the late 19th century. Japan is a country about the size of California, has a little over half of the American population crammed into 1/3 of the country—two-thirds is uninhabitable. It is a country with no natural resources. So Japan is a country that has always had to live by its wits. It has nothing going for it except what comes out of its heads. And we have always been able to tolerate a certain amount of inefficiency in education because we have timber, farmlands, oil—natural resources that we can fall back upon. But the ecological frontier is over. We, like Japan, have to from now on live by what comes out of our heads, live by our wits. I think people intuitively understand this.

The third thing that you see is the emphasis on quality. I said people were buying up. They see education as an investment. They want quality, they value quality and, of course, colleges understand this. Quality becomes the central marketing tool for recruiting purposes, and as a matter of fact, I think by now the significant differences in American higher education are not public-private but good-bad. It's high-quality institutions versus low-quality institutions in both public and private sectors. If you look at the real issues, they tend to sort out this way. I guess in some ways this preoccupation with quality has led us to why we're here today—why accountability and assessment and productivity are a set of issues that have arisen.

I thought the analogy that Carol Boyer made about the K-12 school reform produced some significant things. This began in the late 70s with the minimum competency movement which was a fascinating phenomenon—in the space of about three years (1975-1978)—we went from 0 to 35 states which had minimum competency programs. And there the basic problem was employers saying the schools are turning out students who can't read and write. You've got to shore up the bottom. But people began to say that's not really enough. In the late 70s and early 80s, it was articulated in *A Nation at Risk* and a rising tide of school reports. The current school reform movement was aimed at the higher levels—we shored up the bottom and now there was a need to shore up the higher thinking skills. So that's what *A Nation at Risk* was about and that's what we have been looking at for the last five years.

As you are well aware, reform has gone through several waves. And everybody has their own way of defining these waves. But I would do it like this. The first wave did what the political process could do. It defined the inputs and mandated the outputs. It sort of put the parentheses around education. This was natural because the political process—the original impetus for school reform—had nothing to do with educators. As a matter of fact, it was often brought about by the opposition of educators. Essentially a coalition of businessmen and state political leaders did what the political process could do: they raised the money. You can pay teachers' salaries, you can have a merit pay plan or whatever—and you can also say on the other end here are the goals—you have to take so many courses to get a diploma from the state of New York or you have to take this test or whatever. We went through the process and

most states did essentially what you could do in this sense. But that left undone what happens in the classroom. Ultimately you have this situation where the door slams behind the teacher and the student and the governor is not there and the president of Xerox is not there—it's the teacher and the kids. So people realized we've done the parentheses but somehow the middle has to be addressed.

The second wave then focused on the teaching-learning process. People started talking about the teacher. We had learning reform coming out of teacher certification. That filled in the middle. Even so, five years later we still realized that not enough has happened. I was down at a White House show-and-tell session to celebrate the fifth anniversary of *A Nation at Risk*. On this occasion people got together to see what had been accomplished. There seemed to be a pretty general consensus that we had wrung out of the current system what could be wrung out of it. It did improve standards and got people to fit into the system and do better, try harder, and take more basic courses. Maybe you can only push this so far. Maybe you have to go back and start thinking about some fundamental changes in some fundamental structures. That's why we are having a restructuring thing going on. The point is that we have a rather incomplete school reform movement which is going to continue. It may well be we will see the first complete change in the system in our country. In talking about higher education, one of the reasons why we are here today is that the school reform movement is bumping up to the higher education level.

I'd like to make a footnote on a point that was made this morning about external pressure. That is, the GI bill was brought about not by the education establishment. As a matter of fact, it's not known by a lot of people, but higher education lobbied against the GI bill. It's hard to believe, but the reason, I think, was the GIs would change the campus—you would have older students, wives and babies, and the colleges were not geared up to this—and it just would not be a civilized place. The higher education establishment, the DuPont Circle of the day, went down and lobbied against the GI bill. The footnote here is that a lot of things that affect higher education are not only external to it but done for noneducational reasons. The GI bill was not an effort to help education but was a baby-sitting plan to help returning veterans and a way to reintegrate them into the workforce. The Elementary and Secondary Education Act was not an act to improve education but was an anti-poverty program. The Middle Income Assistance Act in 1978 was not a student assistance act but was middle income assistance. If you follow the federal legislation which has had a big impact on higher education, you usually find it was done for reasons that have nothing to do with education. In some ways this is the ultimate compliment and goes back to my topic—do Americans value education? It's so intrinsic that whenever we have a problem we look to education as a vehicle to solve it.

School reform is bumping up to the college level. It was certainly intensified by Bill Bennett who came charging in ready to do battle. At his first news conference, he said American colleges were ripping students off. And that was the stereos-Florida vacation speech. He came in and part of his plan was to go after the colleges. We are going to miss him. As Mark Russell said when Nixon left, "Now I have to go back to writing my own material."

Anyway, Bennett did have an instinct to go to the two places where colleges are vulnerable. The first is on costs. I think the vulnerability is not just the rising costs—you probably can make the case that education is a little bit more expensive than general inflation. But the explanations colleges gave for the rising costs were only loosely related to the reality. Every year we get these statements from college presidents. Because we are now a labor intensive industry and we are facing soaring costs much greater than other sectors, and the need to catch up on faculty salaries and maintenance, and depending on the year, it is energy, libraries, computers, you fill in the blank. I start reading these and ask, "What's this year's blank going to be?" The implication is we are just sitting here, and our costs are going up, so we are just passing these costs on to you. Well, it took me a long time to figure this out, probably longer than it should, but it didn't square with reality. I finally figured out that pricing is more market-related than cost-related. Bowen's point that colleges get what they can and spend up to it is true. Basically, colleges price themselves on what the market will bear and then do a lot of discounting—called financial aid. You don't compete by price. Sectors compete by price. The Ivys have one price, the Amherst, Williams, Wesleyans have another price. But clusters of colleges compete. If you are in the Kenyon-Oberlin cluster, you can't be more than Harvard, Yale, and Princeton. But there's not competition on price among colleges. So you charge what you can get and then discount. People began to figure this out and the problem was one of candidness. Bennett has a point here and colleges are vulnerable on the cost issue.

The second area where colleges are vulnerable is the curriculum. This is a little trickier but the curriculum does lack coherence. If there is coherence, the general public and education writers do not understand it very well. Let me take a running jump on this one. I first started writing about curriculum back in the mid-70s when Harvard started its discussions of the core curriculum. Because Harvard was doing it, everybody else did it. Basically what you saw was the recovery of distribution requirements. And I remember writing this and had lots of interesting conversations with Henry Rosovsky. Beyond that, it was hard to find interesting ideas about curriculum. All people seem to go back to the Chinese menu approach—so many credits in the humanities, so many credits in sciences, etc. I got bored by the subject because I couldn't find people doing interesting things. Then in the early 80s, other colleges were talking about curriculum again. In looking back on all this, I figured out what had happened before. What took place in the curriculum reform of the 1970s had nothing to do with academics or higher education. It was political. Colleges were reasserting their authority over the curriculum that they had ceded to the students in the 60s and early 70s. It was simply grabbing the power back—grabbing the control back. If you are going to do that in a way that will not upset the political turf within the faculty, you take something from everybody. It was the most neutered way you could bring a little coherence to the curriculum because no one lost anything. The faculty collectively regained control of the curriculum, except at places like Brown. Then colleges began to realize that the distribution requirement approach is a little mindless. It deals with more structure than content.

We began to see colleges asking the question—what does it mean to be an educated person? As far as I can see, what people came up with next was a skills add-on. Distribution requirements were there. So we next added skills—writing, calculation, computer use. And there was a set of content add-ons—you have to know something about a non-Western culture, as recently seen in the debate at Stanford. Or gender studies or others. Basically,

that's the curricular reform I have seen. There are some schools that are going beyond that now—I just haven't had a chance to look at them. But the basic question is, what does it mean to be an educated person? Bennett's instincts were right. Colleges really haven't thought this through and he went after them on it.

The last and possibly most important point is that we are in an age where productivity and accountability are in the air. We realize much of this is driven by economics. The post-Sputnik school reform was a response to an external military threat. The current school reform can be viewed as a response to an external economic threat. As a matter of fact, Ernie Boyer said that what we should do is get the Japanese to shoot a Toyota into orbit. We can have a more visible symbol of the problem we face. So we are concerned with productivity—get our act together, tighten up—the auto companies are reorganizing. And the obvious question is, why does higher education claim it's the only industry that is immune from this? We don't talk about productivity in higher education circles—it's a no-no!

You are not supposed to talk about it—the terms of higher education are different—it is a different enterprise. But that's not clear to most people. It *may* take on special significance—because along with entertainment, higher education is the one area where Americans dominate this world in terms of exports and a favorable balance of trade. It is an important industry. Once people raise this question, they look around and see some obvious areas for improvement. Like the summer downtime. I realize there are big problems of what to do with the campus in the summer but to the outsider, it really doesn't look too smart. Imagine Ford closing down one of its assembly plants for the summer not because of a drop in sales but because that's the way they want to do it. If you look at the school year, I think you could probably make a case that the length of the school year in American colleges is inversely proportional to the tuition. People wonder why in the first week in May they are reading a story about Columbia's graduation. What a life!

And then maybe the most compelling reason is the whole question of the internal reward system—the teaching/research issue. Here I would point you to the data that Boyer got out of the *College* survey. He finds that a lot of people out there are doing research who would rather be doing something else. Ninety percent of the serious research is done by 10 percent of the faculty. Everybody knows that many are grinding away on useless research to make a big resume, to get tenure at a place where you are supposed to be teaching anyway. The underlying theme here is that maybe the values of the academy are out of sync with the values of the society supporting it. People are very concerned about the quality of teaching. You look at reward systems where teaching doesn't get rewarded. I realize this is a complicated issue and there certainly is a point at which good teaching and good research have a symbiotic relationship. But maybe not in every institution. Boyer talked about a system where you don't have to contribute new knowledge to your field but you have to demonstrate that you are up on what others are doing. Maybe we need a new definition of academic competence for people who aren't going to be generating new research. Certainly, it is within the capability of individual institutions to alter ways of rewarding good teaching—salary bonuses will go a long way; sabbaticals; various other kinds of recognition. The basic point I'm making is that I'm not sure on the teaching/research issue that the values of society are reflected very closely with the values of the academy.

Then you get to the question of value-added testing. I realize that it's very difficult to define some of the goals of the academy. It has been suggested, for example, how do you measure basic skills or subtle things, skills for the future like historical sensitivity or literary sensitivity. I should remind you that there are places where this has been looked at, including the judicial system. Columbia University about 15 years ago sued a student for nonpayment of tuition. The student filed a countersuit, saying "I didn't owe you any money because you didn't make me wise." In his legal brief, he cited statements in the catalogue, pronouncements by senior administrators and inscriptions on campus buildings, saying four years at Columbia would imbue you with wisdom. The judge dismissed the suit on the grounds that there wasn't any precedent in common law. But the judge also couldn't avoid the temptation to throw in a zinger of his own: he quoted Alexander Pope that a little knowledge is a dangerous thing. It was a fascinating decision to read.

Having appealed for more emphasis on productivity (this is what the public is asking for), let me also argue the other side. One of the things which strikes me as a journalist is the extent to which college administrators pride themselves on how worldly they are, how effective they are as managers. So you see colleges present themselves with marketing analogies. This is fine up to a point. But the culture of higher education is very different from that of industry. It's why businessmen tend to be disasters as college presidents. It is essentially a political job where you need the power to persuade, not make a decision. It's a culture that values process more than results. The process itself is the goal, not necessarily any resolution or decision. There's also a point at which the market analogy breaks down. When buying a bar of soap from Proctor and Gamble or a Chevrolet from General Motors, for the most part, it's between you and them. You buy a product. But when you purchase higher education, there is a third party involved—that is the public. All higher education is subsidized and the country has a stake in the outcome of that purchase. What Carol Boyer was saying about the openness of state education officials to be persuaded is true. The public will tolerate the differences between higher education and other industries and can be persuaded of them. The problem is that you in higher education have to tell them what you are doing, you have to persuade them better. Defining the new goals or finding a new definition of what it means to be educated or to go back to problems of the curriculum—it's hard to find people in education, much less whole faculties, who can articulate for me what they think it means to be an educated person in the 21st century. So a lot of the problems do have to do with communication. If you can communicate something that presumably means you know what you are trying to say. That is the message or the missing element. Higher education has to think through better what it is about and then all the other issues fall into place.

The Tennessee Experience: Performance Funding

Homer S. Fisher
Executive Vice Chancellor for Business, Planning and Finance
The University of Tennessee, Knoxville

We are delighted to be here with our colleagues in New York to participate in this discussion. We have had an opportunity to speak to a number of groups around the country describing some of the assessment activities taking place in our state and on our campus. This afternoon we hope to share with you information that will improve your frame of reference concerning assessment and give you ideas for approaches that you might take, as well as some things you might avoid, as you plan to undertake assessment activities.

I suspect that most of you know more about Tennessee from the perspective of Opryland and Dollywood than from your knowledge of higher education in the state. As you will note, we do feel pretty good about some of the developments in higher education in Tennessee, particularly in the last eight years. We have two systems of higher education in Tennessee, including a system under the jurisdiction of the Board of Regents which includes 14 community colleges and 6 four-year institutions. The University of Tennessee is governed by a Board of Trustees and has four campuses including the Knoxville campus, the graduate and research institution of the state of Tennessee. We have 19,000 undergraduates and 6,000 graduate students. The total budget exceeds $250 million annually, including approximately $60 million in sponsored research funding.

The emphasis of our comments today will be upon assessment programs which are focused upon undergraduate education but also have some implications for graduate programs. The Tennessee performance funding program began during the mid-1970s when enrollment pressures were beginning to ease. In fact, we were projecting a period of level enrollments and anticipating some declines. As was the case in a number of other states, Tennessee higher education officials began considering qualitative initiatives. A number of approaches to program improvement were discussed, and the earliest of these was the performance funding program which was implemented with pilot tests during the late 1970s. The earliest version was begun on all campuses between 1979 and 1982. The first five-year performance funding schedule was put in place in 1983. The program began with mixed reviews, and some campuses encountered resistance. The faculties of the colleges and universities in Tennessee felt that they could appropriately assess quality without such a set of state-provided guidelines. However, over the period of phased implementation of the program, we observed greater acceptance of the program as well as improvements in the schedule itself. We completed the first five-year schedule just this year, and we are now moving into the second five years of performance funding. The new five-year schedule includes five standards that must be met if an institution is to earn all of the funding for which it is eligible, and for the first time provides an optional standard which allows an institution to earn additional points and the associated funding. If an institution completely fulfills all requirements of the first five standards, an amount equal to 5 percent of the institution's total instructional budget will be added to the institution's annual appropriation. For UT-Knoxville next year, the amount of money for which we would be eligible (if all points are earned under the first five standards) would be approximately $4.5 million.

The first standard is program accreditation. Institutions are given credit on the basis of the percentage of accreditable programs that are fully accredited. That particular standard has declined in importance in the new schedule because, over time, more and more programs throughout the state have been accredited. During the first five years of the schedule, this standard worked as a strong incentive for program accreditation, particularly for the community colleges and smaller four-year institutions. Twenty points are available for this standard.

The second standard provides for the testing of graduating seniors in the content of their major field (and for graduate institutions' external reviews of master's programs). This is a component that has remained constant in terms of relative weight in the point schedule from the first five-year cycle to the second. Up to 30 points may be awarded on the basis of performance and improvement in performance using standardized examinations in the major field (professional exams for accounting, nursing, teacher education, etc.) or local exams developed at the departmental level. The local exams are subject to external review before they are approved and administered. We have seen many academic departments across the state develop their own local exams, giving the faculty an opportunity to develop examinations in response to curriculum goals.

The third standard is the testing of seniors in general education. The focus here is on two factors: the total scores earned on the ACT-COMP test by the institution's seniors compared with those of their peers, and the score gain registered by seniors compared with their performance on the COMP as freshmen compared with gain scores of students at peer institutions. Institutions may earn up to 20 points on this standard with up to 10 points available for each factor.

The fourth standard, one that has proved to be significantly important over time at most institutions, involves surveying alumni and dropouts concerning their perceptions of program quality. The information gained from surveys is examined for improvements and also compared with norms and contributes to a total of 15 points under the new schedule compared with 10 points under the original schedule. The committee recommended the additional points as the 1988-92 schedule was developed because of a strong belief that the survey information had played a major role in program improvement.

The fifth standard, which provides up to 15 points, recognizes improvements made by the institutions based on findings from the assessment activities of Standards II, III and IV. This standard has been referred to as the planning standard. The institutions use information from a variety of assessment programs to improve instructional and support processes and thereby improve student outcomes over time. For many of us, this has been the most significant standard because it has enabled us to integrate outcomes assessment with ongoing planning activities. Trudy Banta will talk about the steps taken in that regard at the University of Tennessee, Knoxville.

In the new schedule, in order to encourage research in the assessment area and to further improve the overall framework for performance funding, we added a standard for pilot-testing new instruments. This optional standard provides up to an additional 10 points over the five-year period for research and development in the assessment area. This standard provides an opportunity for institutions to continue their exploration of assessment programs

and gives credit to pilot-testing new approaches to assessment, reporting on findings, and demonstrating how these approaches can be used in institutional decision-making.

Question from audience: "Can you tell us how you redistribute the extra funds received among the departments? If you have a department that didn't make it and one that did, what happens?" Response: In our annual budget hearings and in our planning, we use information gathered from the assessment activities in several ways. A department can justify additional resources on the basis of its demonstration of quality using a variety of outcomes sources. A department can also use the outcomes assessment information to point out the need to strengthen the curriculum in a particular area and justify additional staffing or more opportunities for faculty development and thus request resources in support of those needs.

The performance funding schedule itself may not have been as important in some of our successes as some other factors that have made the program workable over time. Here are some of the strengths of the program:

1. The program is voluntary. An institution does not have to participate in the program. In our case, I think we would have made a serious mistake if we had not participated because we have found that we have been able to use the information in our ongoing planning, policy-making and decision-making framework. I must emphasize, however, that our participation was voluntary. We could have decided that we didn't want the $4.5 million this year.

2. Participation produces a substantial budgetary supplement. The program is not punitive. It was put in as a true supplement. Obviously, that has had a substantial impact on the overall reaction to the program. The initial supplement provided up to 2 percent of the instructional budget. Later it moved to 3 percent and is now 5 percent. These increases in the relative weight were achieved after deliberations by a committee of institutional representatives, Board staff and Commission staff. This group believed that the performance program had been sufficiently successful to warrant an increase in the funds distributed through the program. That unanimous support for the distribution of additional resources through this program as opposed to distribution by the funding formula would not have been present at the time the performance funding concept was initially introduced.

3. The program was phased in gradually, effectively over eight years.

4. The criteria have flexibility. It rewards absolute performance, improvement and, to some degree, participation in the process itself.

5. There is not competition among Tennessee institutions for funds. We are not competing with each other. We do compete nationally with our counterpart institutions as we compare our students' performances on particular examinations, but we do not compete with other institutions within the state in earning points under the framework of the standards.

Carol Boyer mentioned the new accreditation standard of the Southern Association of Colleges and Schools related to institutional effectiveness. Much of the emphasis of the new standard reinforces the performance funding program in Tennessee and has encouraged other

states to look at similar approaches to assessment. The new standard stresses planning and evaluation with the involvement of both faculty and administrators. It stipulates that institutions must establish a clear purpose and mission. Goals must be established consistent with purpose, and the progress toward achievement of goals must be assessed with the information gained used to improve effectiveness. All of these aspects of the new standard are recognized to at least some degree in the Tennessee Performance Funding Program.

About 18 months ago, my colleague Trudy Banta and I surveyed the institutions in Tennessee to get some reaction to performance funding among our colleagues. The timing was not an accident. We felt we could use this information as the schedule for the second five-year cycle was being developed. I would like to share the highlights of the survey results with you.

Our findings concerning responses to Standard I, accreditation, indicated that 12 of 22 institutions now have more programs accredited than they did prior to the first five-year cycle of performance funding. Eight of those 12 directly attributed the accreditation of the additional programs to Standard I. Five of the eight viewed positively their decisions to have these additional programs accredited. On balance, the institutions viewed Standard I in a positive way.

In response to Standard II, which focuses on major field of study, we found that the number of institutions using systematic peer review in a comprehensive program review process to look at the quality of programs increased from 3 to 12 during the five-year cycle. At UTK, we feel that the peer review process is one of the strongest approaches to assessment; and we learned in our survey that other institutions share this view. In our survey, we also found an increased percentage of programs using comprehensive exit exams in the major, selecting either standardized exams or using locally developed exams. We now have a significant percentage of institutions in Tennessee using both standardized exams and locally developed exams. Ten of the institutions favored use of local exams, seven favored the use of standardized exams, and five indicated no strong preference. At UTK we have tried to give flexibility at the departmental level for the faculty to evaluate the strengths and weaknesses of the standardized exams and then examine the potential for developing local exams before making decisions concerning which approach makes the most sense for a particular program.

Institutions in Tennessee have used the results of the standardized exams and/or the locally developed exams in the major to identify strengths and weaknesses and suggest improvements in curriculum and instructional processes. Program improvements have been made at a number of institutions and resulted in better outcomes on the subsequent examinations. We found increased attention given to self-study and program evaluation at the departmental level. Faculty have been encouraged by high scores on standardized tests in some programs, and in others they have been concerned about lower scores and worked to improve student performance. Faculty are asked to consider program objectives, both in evaluating the adequacy of standardized exams and in developing new local exams. For the first time in some institutions and departments, faculty are looking at the relationship between their curriculum and desired program outcomes. We have also seen increased communication between faculty and administrators regarding instructional goals. At UTK, we have provided seed money to support the development of local exams, giving faculty released time to define performance levels appropriate for the students' major field of study, and to develop exams which accurately measure performance.

The survey further indicated that four institutions are testing freshmen using the COMP and nine institutions are testing seniors using the COMP to assess general education outcomes. The nine institutions which are testing seniors but not using COMP at the freshman level are imputing COMP scores using initial ACT scores. There are questions about the validity of this approach, but we don't have time to discuss that issue today. Measurement of general education outcomes is probably one of the more controversial aspects of our assessment program, because ACT-COMP is a standardized test which measures only a portion of the general education component. It was the best test that we could find at the time we made the decision to test in the general education area. The COMP measured a higher percentage of content we wanted to measure in the general education area than did other instruments available at that time.

Our survey indicated that Tennessee institutions have sought to relate performance on the COMP to a number of factors: GPA, attrition, types of general education courses taken, age, and demographic factors. Careful studies have been made at these institutions in an effort to determine relationships between COMP scores and a variety of activities in place at the particular institution.

What has been the result of using COMP throughout the state? We've seen careful reviews of the general education curriculum; changes in general education objectives; and curricular changes in areas of problem-solving, the arts, humanities and social sciences. We have also seen faculty development initiatives in some departments to strengthen faculty capabilities in areas where departments have not been satisfied with COMP results.

Probably the most popular single component of all of the performance funding standards is the survey activity. Ninety-one percent of the institutions believe the use of surveys is worth the cost of the surveying effort. The information coming from surveys of dropouts, alumni and enrolled students has encouraged institutions to strengthen advising, give more attention to placement of graduates and improve student services, registration and class schedules. We have seen a number of efforts to improve student retention using information from dropout surveys which reveals differences in responses of dropouts from responses of those who persist. We have found factors contributing to attrition which are totally unrelated to academic performance that we can give attention to as we seek to improve the retention of students.

Improvement of orientation and supervision of graduate teaching assistants, increased emphasis on the use of the library, emphasis upon better writing and new faculty development initiatives are additional results of the availability of the survey information.

The fifth standard—planning for instructional improvement—has obviously encouraged institutions to incorporate information from a variety of assessment activities to improve instructional programs. In 1979, only nine of the 22 institutions were using comprehensive planning processes. Now 21 of 22 (95 percent) are using such processes and 50 percent of these have said Standard V has influenced their planning by focusing more attention on curriculum and program improvement. At our institution, this particular component has led to a better focus on certain areas of needed program improvement and enabled us to bring together our outcomes assessment and planning activities in a more refined fashion.

In summary, major improvements directly related to performance funding have occurred throughout higher education in our state. We have increased the efforts of faculty throughout the state to monitor and assess student progress. General education curricula have been strengthened. Improved planning, improvements in a variety of student services, better placement procedures and more faculty development initiatives have occurred at a number of institutions. We have seen increased community involvement in institutional programs through the involvement of employers and community representatives in assessment activities. Increased attention has been given to student evaluation of instruction and student services. Since the program has now been in place for a number of years, we can look at student perceptions of programs and services obtained during the first years of the program and compare their responses five years later and clearly understand and appreciate the degree of change that has taken place in a number of key areas. Throughout all of the assessment activities, a major contributing factor to the successes that have occurred has been the substantial involvement of faculty throughout the process.

The Tennessee Experience: The View From a Campus

Trudy W. Banta
Research Professor and Director
Assessment Resource Center
The University of Tennessee, Knoxville

In 1983, when it became clear that the Tennessee Higher Education Commission (THEC) planned to implement a policy of performance funding, there was some consternation among faculty and administrators at the University of Tennessee, Knoxville. This external mandate seemed to pose a threat to academic freedom, yet it was difficult to argue with the state's contention that public institutions should be held accountable for student learning.

We felt that we needed to find ways to make the process of outcomes assessment a part of the ongoing activities of the university and to involve students and faculty as well as administrators in that process. We obtained a small grant from the Kellogg Foundation and undertook an initial study to make assessment our own, setting forth some ground rules and creating a sense of trust among the members of the campus community. Since then, we have shared the results of assessment with students, faculty, and administrators on an ongoing basis because we need the active participation of all these groups to insure that the assessment information we collect will be used for improvement.

Under the aegis of the Kellogg grant, we established three task forces, one to investigate methods of assessing student achievement in general education, one to look at achievement in the major, and one to study the use of surveys to sample opinion about program quality. These task forces meeting as a single group ultimately developed a formal statement of purpose for assessment on our campus. It is crucial for any campus to have a single-mindedness about why it is undertaking an assessment program. We determined that we would use assessment activities to gather information that would permit us to strengthen and improve our academic programs and student services and that we would incorporate these activities in our ongoing comprehensive program review and institutional planning process.

We utilize an internal planning framework that involves a committee of faculty and administrators in considering the external environment of the university, its internal strengths and weaknesses, and filtering that through the values and tradition of the institution to make recommendations to the central administration about mission, goals and objectives, and progress toward achieving our purposes. Following the recommendations of the Kellogg project task forces on assessment, the university's planning committee modified the one-paragraph statement of mission for the institution to include a sentence about the enforcement of our academic standards through a rigorous program of peer review and assessment (see Chart 1).

Chart 1

University of Tennessee, Knoxville

Statement of Mission
1985
(An Excerpt)

. . . The University's high standards are enforced through a rigorous system of program review and assessment . . . .

Rewards for excellence (are) based on regular assessment . . . of programs as indicated by . . . measures such as the achievement of graduates, student and alumni opinion, and professional peer review.

Prior to 1983, the guidelines for preparing the self-study before a peer review had focused on traditional resource measures—that is, the abilities of incoming students, the training and level of expertise of faculty, the effectiveness of the department chair, and the adequacy of the library collection. As the result of our new interest in assessment, in 1983 we modified the self-study guidelines to focus attention on outcomes as well as input indicators. Now we are saying to each department that we want to develop a sense of how well their students are doing in general education and in their major field, and how program graduates, employers, those who have dropped out of the program, and others feel about the instruction and assistance being provided by the department.

As the principal measure of student achievement in general education at UTK, we have employed the College Outcome Measures Project (COMP) exam developed by ACT. There are two forms of the COMP exam—a six-hour version that gives students an opportunity to do some writing and record a speech, and a two-and-one-half hour version that uses a multiple-choice response format. Since there is a high correlation (.8) between the longer composite exam and the objective test, we administer the shorter test to approximately 1,800 freshmen and 3,000 seniors annually.

The COMP exam is described by its developers as a test of "effective adult functioning." It tests students' abilities to apply what they have learned in the areas of science, social science, and the arts. It also provides subscores in communicating, solving problems, and clarifying values. The developers of the COMP have demonstrated that there is a relationship between seniors' scores on the test and job supervisors' ratings, participation in civic affairs, and the likelihood of continuing one's education after college. We used the COMP exam initially with a sample of volunteers in 1980, began testing systematic samples of seniors in 1983, then made taking the test a requirement for graduation in 1985. We took action to require the COMP of all seniors primarily because departments were interested in seeing the scores for their own students, and it was impossible to provide this information on the basis of a sample of the senior class.

In providing comprehensive exams in the major for UTK seniors, we utilize 54 different commercially available tests and 46 that we have developed on our own. In many of the liberal

arts areas, we were able to use the Graduate Record Exam Advanced Tests. But in the Colleges of Agriculture, Communications, and Human Ecology, and in the humanities, we were forced to develop our own exams because no standardized tests were available. Every faculty that developed a comprehensive exam in its discipline did so in consultation with two specialists in the field from other institutions. While many of these exams contain multiple-choice items constructed by the faculty and validated by the external consultants, most also contain some performance components. For instance, in the advertising exam, a client in the Knoxville area who has a new product comes to the classroom and explains it to the students. Then the seniors develop an advertising campaign which receives a critique from the client. In child and family studies, where each senior participates in a field experience, a part of the comprehensive examination is a rating by faculty and field supervisors of the senior's performance in the field setting.

Our surveys have proven to be the most popular element of our assessment program. Since we decided to develop our own instruments, the surveys had instant credibility with the faculty and administrators who were involved in determining their content. One distinct advantage of constructing your own survey is that you can use the exact titles of programs and services on your campus—the "Career Planning and Placement Center" rather than simply "the placement service." Since 1983 we have developed a family of related survey instruments that contain a number of common items so that we can tell how alumni, enrolled students, and graduate students feel about certain aspects of the curriculum and instruction.

When a department begins the self-study for its program review during the year prior to the visit by external consultants, we are in a position to offer the department a variety of information about its program outcomes. The department will receive COMP exam scores for seniors, scores from its comprehensive exam in the major, results from the annual Student Satisfaction Survey for its own students, graduate student survey responses, and information derived from a survey of departmental faculty. Pulling together information from a variety of sources as we do is far more defensible than any attempt to assess program quality using a single measure.

I would like to emphasize that prior to 1983, many forms of assessment were already underway at UTK, just as they are on most other campuses. When our Kellogg task forces began to look at what was available to measure program outcomes, they conducted an inventory of existing assessment activities, and we have utilized those as part of the overall campus assessment program. For instance, many departments were already looking at rates of job placement and placement in graduate school, at surveys of graduates and employers, and at such assessments of student performance as are provided by portfolios in art, performance in dance, case study analyses, and oral presentations.

I would like to summarize some important assumptions that underlie the University of Tennessee's assessment program. We are not focusing on the levels of achievement of individual students; rather we are assessing the quality of our academic programs and student services by measuring their effectiveness in meeting the goals that faculty and administrators have established for them. No single assessment technique can give us all the information we need to effectively evaluate any program. Instead, we must employ multiple measures of outcomes. We have attempted to establish trust for the program among faculty and students. The faculty have been assured that they will not be evaluated for promotion or tenure on the

basis of assessment information, and students are assured that their performance on assessment measures will not serve as a barrier to their progress toward a degree. The attitude that we would like to convey is that we are all engaged in a process of self-assessment to find out how we can improve. The assessment information is not going to be compiled in a volume that sits on a shelf; it is going to be used. We attempt to insure this usage by providing a variety of data summaries for various audiences, not only in written form, but in presentations that will permit discussion and clarification of issues.

Now I would like to summarize some of the results of our assessment initiatives. The experience of testing UTK seniors in general education has led to additional discussion by faculty of good practice in teaching and testing. It has also made the faculty more sensitive to the need to set learning outcome objectives for students. Coincidentally, our emphasis on assessment occurred almost simultaneously with our decision to change from a quarter to a semester calendar, and the discussion of learning outcome objectives fostered by the assessment initiative was very helpful as changes in courses and programs for the semester system were considered. We used the opportunity provided by the calendar change to employ the assessment data to suggest direction for constructing a stronger core curriculum in general education and to emphasize social science in that core. Interest in a problem-solving-across-the-curriculum initiative also was fostered by a concern about student scores on the Solving Problems subscale of the COMP exam.

Testing seniors in their major has stimulated faculty in every discipline to think about learning outcome objectives for their own curricula. As a result of these discussions, we believe that there is more consistency in the teaching of core courses that are offered in multiple sections, and since there is a better sense of shared purpose with respect to achieving curriculum goals, upper and lower division courses are more closely integrated. That is, lower division courses actually become prerequisites for upper division work, and there is a more conscious effort to build at the upper division on concepts that were taught in lower division coursework. After faculty have had an opportunity to study students' scores on the comprehensive exams, some have implemented a stronger core curriculum, several have provided more structure within certain courses through the use of formal statements of objectives, and most have begun to give students more written assignments and more opportunities to demonstrate that they can apply what they are learning.

After reviewing the results of our assessment activities over several years, the central administration has made a number of significant changes based on needs identified in the assessment process. In some colleges and departments, enrollment limitations have been implemented so that class size can be reduced and faculty will have more time for advising and working with individual students. A strong emphasis has been placed on advising in all of the ten undergraduate colleges—real dollars have been added to strengthen the advising function and faculty have been given increased opportunities to acquire released time for that purpose. With our survey of graduate students, we found that the most significant area of dissatisfaction was the size of stipends available. Accordingly, the administration has made a concerted effort to increase graduate students' stipends.

The university's planning committee annually considers evidence of the achievement of the institution's goals and related objectives. For the last three years the assessment data has been summarized for each goal to which it may be applied (see Chart 2). For instance, the

affirmative action goal has a related objective of emphasizing minority retention. Our dropout survey reveals that black students are more likely to leave the university for personal and financial reasons than are white students. Knowing this has provided the basis for a whole series of intervention strategies on the part of our student affairs staff and faculty.

Chart 2

UTK Planning Goals

1. Student body composition
2. Student development
3. Academic program
4. Faculty
5. Teaching
6. Research
7. Affirmative action
8. Library
9. Computing/Telecommunications
10. Economic development
11. Resource allocation

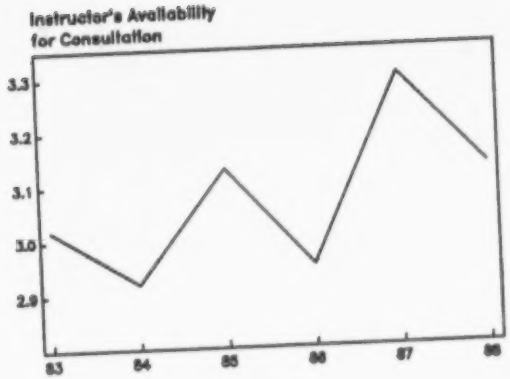
I would like to close with some concrete evidence of what can happen when assessment data are collected, carefully analyzed, interpreted for decision-makers, and used to make needed improvements. We now have data on student satisfaction for six years and can demonstrate that over that time satisfaction has improved with respect to a majority of the items on the survey. Responses to some of the items have remained at the same level, but on no item related to instruction or services provided by academic departments has there been a significant decrease over those six years. An example of a dramatic increase is the pattern of responses to the item "accuracy of catalog description of courses." As a result, we believe, of increased agreement among faculty about program objectives, we would expect improvements in the congruence between the catalog description and actual course content. Students' responses confirm that these improvements have occurred. The lower student/faculty ratios that we have tried to effect at UTK since 1983 have led to increased student satisfaction with opportunities for discussion in class and availability of faculty outside class (see Chart 3).

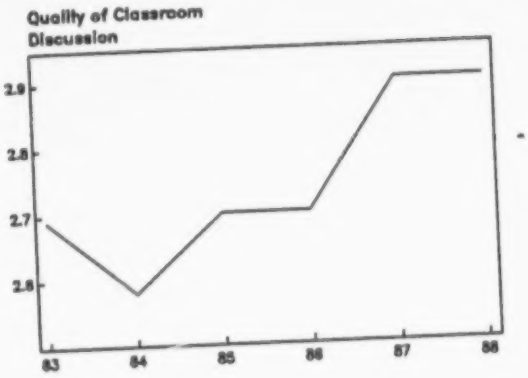
Six years ago the absence of systematic data made it difficult for us to focus on what we ought to be doing to improve the student learning environment at UTK. Today we have a series of clear goals that we can distribute to every faculty member. We have achieved consensus about those goals and we are motivated to move forward toward achieving them. A collective sense of purpose is one of the most positive outcomes of our assessment initiative.

Chart 3

Evidence of Goal Attainment

Responses Related to Class Size
(Student Satisfaction Survey)





The King's College Experience

D. W. Farmer
Vice President for Academic Affairs
King's College, Pennsylvania

I am presenting today a private college perspective on assessment, but what Joseph Burke and Trudy Banta have said from a public college perspective points to many commonalities. The basic message that needs to be heard is that private and public colleges can agree on essential purposes, methods, and data for assessment because they share a common goal: to use the assessment process to help students achieve academic success. This basic agreement among educators from the public and private sectors provides an important message for policymakers.

Some in higher education wonder if assessment is not just another fad which will soon be out of favor. Others outside of higher education see assessment as "medicine" for holding higher education accountable. I believe that assessment should be seen in a more positive way for the promise it holds to improve both the quality and quantity of learning taking place for students.

If this promise is to be realized, however, the purpose of assessment must first be clarified. I view the emerging national debate on assessment to focus directly on the ambiguity of purpose. A major gap exists between the concepts of assessment as learning and assessment as measuring. Assessment as learning is a faculty-driven diagnostic and formative evaluation process aimed at improving student learning by providing continual feedback on academic performance to individual students. Assessment viewed as measuring is an administratively driven, standardized, and summative evaluation process designed to produce a numerical rating. These two concepts of assessment are not necessarily incompatible. I do believe, however, that it matters greatly which one a college chooses as a primary purpose for assessing student learning. It is this decision that will determine whether or not a college realizes the promise assessment holds for improving higher education.

Externally mandated assessment programs respond to the administrative and information needs of legislators, state boards of education and the public in general. These general tests of student learning are usually administered to graduating seniors in order to produce a score or grade that can be reported to those mandating these standardized tests. Although test and measurement experts may be pleased with the objectivity and validity of such an approach to assessment, they do not address the more important educational questions concerning the value of the learning being assessed and whether the assessment process benefits students.

If faculty approach assessment as being divorced from learning and as simply being a bureaucratic hurdle for students to overcome, assessment will lose its credibility and be treated by faculty and students as busywork. Assessment must make sense to faculty in order for it to have an impact on education. Assessments should not be designed to assess what is easiest to assess but rather what is more difficult to assess. It is the learning that is more difficult to assess that represents the real measure of quality in higher education. It is this learning that is more appropriately associated with the intended outcomes of liberal education.

Colleges need to design assessment strategies to assess what is higher in higher education—the ability of students to apply what they have learned to a new stimulus—rather than what is lower—the ability to demonstrate information-recall. Memorizing and emphasizing information-recall should not be substituted for thinking and applying one's understanding to new challenges as the primary goal of higher education. If "assessment" is truly the code word for the quality issue in higher education today, let us be clear about what constitutes quality undergraduate education.

King's College focuses primarily on individual student assessment rather than on program assessment. The college is committed to the concept of assessment as learning. Its chief characteristic is to provide meaningful feedback to students so that they can then act upon that information to improve their performance. Assessment at King's College is an integral part of the teaching/learning process and has evolved naturally out of the faculty's implementation of an outcomes-oriented curriculum. Helping students to become more successful learners has contributed to increasing the college's retention rate and that is important for a tuition-dependent college.

Earlier this year, I published a book describing the development of the King's curriculum and its course-embedded assessment model. In the preface to this work, *Enhancing Student Learning: Emphasizing Essential Competencies in Academic Programs,* Peter Ewell emphasized that excellence at King's College is the fruit of its strategic planning process and its willingness to spend time-on-task during the past ten years: "Several themes of the King's College experience are particularly noteworthy in the light of national experience. One is the often overlooked proposition that excellence begins with action. Visible throughout the experiences described in this monograph is a demonstration that excellence in undergraduate instruction does not just happen; rather it must be *achieved* through the intelligent deployment of limited resources in the pursuit of carefully defined ends."

I am frequently asked the question, who or what made you do it? The answer is almost inconceivable to most who ask the question: "We did it because we wanted to improve the effectiveness of education for students at King's College." In the context of a centralized planning process, I formulated objectives requiring stretching for both faculty and students as well as a certain degree of institutional risk-taking. It is this kind of planning objective that results in change and improvement. If planning is safe and objectives easy to meet, then a college is not in a strategic planning mode. The King's faculty responded to the challenge by rethinking what it is that students should know and be able to do as educated persons living and working in the 21st century.

My own personal starting point in thinking through an outcomes-oriented curriculum occurred several years earlier when a graduating senior paused at my office door before leaving and said, "Before I graduate there's something you ought to know: There's a lot more teaching going on here than learning." This is painful for a faculty member to hear, but at the same time is vital for challenging the emphasis faculty place on the teaching part of the teaching/learning equation. Learning does not automatically follow simply because a faculty member teaches. Looking at the relationship between teaching and learning is crucial. Such an examination leads naturally to an even more vital assessment question: How do we actually know the quality and quantity of learning that has taken place for students?

It was clear to me that King's College faculty needed to develop a conceptual and thoroughly academic approach to curriculum development and not the traditional political approach based upon departmental turf questions. Acting on the belief that many good educational ideas have failed because they were introduced prematurely, I delayed consideration of any possible curriculum revision. Rather than rushing into curriculum change, I encouraged the King's faculty to spend five full years engaged in faculty development programs which included "Writing Across the Curriculum," "Critical Thinking Across the Curriculum," and a variety of other transferable skills of liberal learning. Faculty at King's had become accustomed to talking regularly at coffee about the sad state of affairs in which students could neither write nor apply other academic skills satisfactorily in their courses. Those who complained the loudest always implied that other faculty ought to be doing a better job. Problems have a much greater chance of being solved when a faculty member says "I must do something" rather than "something must be done." The faculty development programs instituted at King's College helped faculty members to define the problem more clearly and to understand that the transferable skills of liberal learning would never be mastered by students until faculty in all disciplines took responsibility for helping students to further develop and to apply these skills across the curriculum.

The King's faculty also began simultaneously to examine ways of encouraging students to become more involved in their own learning and to become active rather than passive learners. Faculty attended national workshops on student-centered teaching/learning strategies and increasingly experimented with these strategies in appropriate units of their courses. Faculty members also began to reflect on the relationship of teaching and testing as a means of making testing an integral part of the learning process for students. Examination questions requiring high-order reasoning skills by students gradually replaced questions designed merely for information recall.

Only after completion of these faculty development activities was the King's faculty prepared to entertain the notion of curriculum revision as an opportunity to reconceptualize learning. Faculty project teams were created for each anticipated area of learning in a new curriculum. These project teams first focused upon the desired student learning outcomes and only after reaching this consensus moved on to the question of course content. This orientation in faculty thinking placed an emphasis on what students needed to learn rather than on what faculty wanted to teach. In the discussions of desired learning outcomes, faculty drew upon their experiences in the faculty development programs to recognize that not all teaching and learning strategies foster the desired learning outcomes. Can students actually develop the capacity for critical thinking or higher-order reasoning if they passively listen to a lecture each day? The result of this approach to curriculum reform was the development of an outcomes curriculum consciously linking appropriate pedagogy to specific learning outcomes.

In a talent-development model, what a student takes away from college is the important factor in judging excellence. The decision to define excellence at King's College in terms of actual student learning outcomes not only requires linking student-centered learning strategies with curriculum, but also on documenting that learning has taken place for students at the level of publicly established standards and assessment criteria. The King's College assessment model provides not only meaningful feedback to students but also documentation that students actually meet faculty expectations.

The assessment program at King's College is intended to be diagnostic and supportive of student learning. The primary purpose of academic assessment at King's College is to provide systematic feedback to students on their academic progress toward meeting the expectations of faculty throughout all four years of undergraduate studies. Students are then able to act upon this feedback to become more successful learners. There are multiple assessment experiences that take place for students from the point of entering King's College to the point of graduation. No one assessment experience, viewed in isolation, can ever be considered adequate.

Assessment strategies at King's College are primarily embedded in course work and therefore are a natural and integral part of the teaching/learning process rather than being external and intrusive. Assessment strategies embedded in course work also address directly the question of student motivation. Students take assessment seriously because it counts as part of the course grade even though faculty assign to it an additional special purpose for assessing specific learning objectives. Since all of these assessment activities are part of course work, they are unobtrusive measures and viewed by students as course projects and test questions requiring the application of the transferable skills of liberal learning. The King's College course-embedded assessment model, informed by the concept of assessment as learning, stands in stark contrast to assessment models based upon standardized tests which provide students only with a score and may or may not relate to what has been actually taught and learned.

Assessment has not been added on to the King's College curriculum. It is an integral part of the plan of learning. The first part of the core curriculum focuses on eight transferable skills of liberal learning. Students gain mastery of each skill by following a four-year Competence Growth Plan. These plans link learning in the core curriculum with learning in each student's major program. These skills reflect traditional liberal learning abilities and new technological skills. Faculty in each major program are in the process of designing Competence Growth Plans in Critical Thinking, Creative Thinking and Problem Solving Strategies, Effective Writing, Effective Oral Communication, Quantitative Analysis, Computer Literacy, Library and Information Technologies, and Values Awareness. It is important that each set of eight four-year Competence Growth Plans be designed by the faculty in the student's major field of study because the exit criteria should not necessarily be the same for all students. For example, a math major may indeed need to know how to write a computer program while an English major needs only to be a computer user.

Each Competence Growth Plan is set up in the same way: a competence description or learning goals, a specific course-embedded strategy as a means of achieving the competence, and specific criteria which faculty use to judge student performance. These criteria help to define the competence goal for students in addition to helping them become more focused learners with respect to priority learning objectives. Faculty have always had such criteria in mind but have rarely shared them so clearly with students. The very act of writing such criteria also has helped faculty to sharpen their own understanding as well as to become clearer about their objectives in the classroom.

It also makes a big difference for students to know as freshmen that the faculty in their major programs have clear expectations for them to transfer liberal learning skills to course work in their major discipline. Many freshmen accounting majors initially think of accounting

only in terms of numbers. They are surprised to discover that the accounting faculty expect them not only to complete writing assignments but also to continue to improve their writing in order to meet the desired exit criteria for senior majors established by that accounting faculty. For students majoring in accounting, it is the responsibility of the accounting faculty, not of the teachers of freshman writing, to help them to understand what constitutes good writing in the accounting profession. This can be done only if students practice writing within the context of accounting courses as a four-year developmental process.

The second section of the curriculum is comprised of interdisciplinary areas of study as well as traditional disciplines and methodologies. The focus is on ways of knowing. Faculty want students to acquire the body of knowledge that traditionally characterizes an educated person, but they also recognize that most of this content is soon forgotten after graduation. What students can really hold onto is how to go about knowing in each of the disciplines. All these different disciplinary perspectives and ways of knowing need to be brought together to provide interdisciplinary solutions to complex problems in the modern world.

The third part of the curriculum focuses on exploring values and is organized around the theme of Responsible Believing and Acting. Students explore values dilemmas in a series of courses and course modules in a variety of disciplines. Formal course work in Responsible Believing and Acting is complemented by the values across the curriculum faculty development program. The objective of this program is to prepare faculty in all disciplines to examine value issues and ethical dilemmas arising naturally out of course work. One of the most challenging and unique aspects of focusing on values in the curriculum at King's College has been the development of capstone courses in each of the four academic divisions of the college for senior-level students. These courses are intended to help students to integrate learning in the core curriculum with learning in their major field of study by reflecting on the value-questions and ethical dilemmas they are most likely to encounter in their personal and professional lives after graduating from college. These courses will be team taught by an ethicist and a faculty member whose discipline relates to the subject matter of the course.

The comprehensive assessment model for enhancing student learning outcomes at King's College also contains several other components in addition to the Competence Growth Plans. Students encounter their initial assessment experience during the summer prior to entering the college. This assessment is primarily for advisement purposes and placement of students in proper levels of courses. Students are assessed in three skill areas, writing, critical thinking, and mathematics, in addition to participating in a speech screening program to identify students with speech anxiety.

During the academic year, students experience pre- and post-assessments in all core curriculum courses. These assessments focus on the ability of students to think and to communicate in each discipline. In skills courses, the assessments focus on determining students' ability to use specific skills effectively. Sophomore-Junior Diagnostic Projects have also been designed in each major program for student majors. The assessment is designed to serve as a diagnostic screening device to determine the ability of students to transfer critical thinking and effective communication skills developed through the core curriculum to a selected question, case study, or project related to their major field of study. The Sophomore-Junior Diagnostic Project provides a safeguard against identifying deficiencies for continuing students only at the senior level when it is too late to help students repair these deficiencies.

The college also administers the ACT-COMP objective exam to all entering freshmen and re-administers a similar instrument to students during their senior year. The value-added focus provided by the ACT-COMP assessment helps to validate student learning outcomes for those outside King's College who might charge that a course-embedded assessment program is too subjective and self-serving to be a valid measure of student learning. Here lies the crux of the major issue in assessment today: Is the goal of assessment to provide feedback to students in order to redirect and to enhance their learning or is it to generate scores for graduating seniors to be reported to those outside a college as evidence that learning has taken place?

The culminating assessment experience for students at King's College is the Senior-Level Integrated Assessment. This assessment is intended to provide an opportunity for the faculty in a student's major field of study to make a holistic judgment of the student's education, especially the ability of the student to integrate the transferable skills of liberal learning with learning in his or her major field of study. Most departments have developed or revised existing senior seminars as the setting for this comprehensive, course-embedded, Senior-Level Integrated Assessment.

The senior assessment is intended to be a performance-based student experience which can be evaluated by all faculty members in the student's major field of study as well as by professionals in related fields of employment if appropriate. The assessment experience should provide the basis for evaluating the following areas of learning:

1) command of the knowledge base for the major field of study;

2) mastery of the methodology of the major discipline;

3) competence in the transferable skills of liberal learning relating to the departmental competence statements and four-year competence growth plans.

Not all the desired outcomes of undergraduate education can be assessed prior to students' graduating from college. King's College also conducts follow-up studies for alumni. All graduates are surveyed one year after the date of their graduation. Students are asked to compare the quality of the education they received at King's College with the perceived quality of the education of those with whom they are now associated in graduate school, professional school, or in the work place. Graduates respond in writing to a series of open-ended questions in which they are asked to compare their ability with that of others to write effectively, to speak effectively, to think clearly, to solve problems, to know how to learn independently, and to provide a comparative judgment of the quality of their academic preparation if enrolled in graduate or professional school or their level of performance and prospects for promotion if currently employed.

I believe that the development of an outcomes-oriented curriculum and course-embedded assessment model have significantly improved both the quality and quantity of learning for students at King's College. The course-embedded assessment model makes sense to faculty and students because it has evolved out of the college's primary concern with teaching and learning. It is not something artificial or tangential to the academic enterprise. Assessment at King's College is not simply a score to be reported to the state Board of Education. It is an integral part of the curriculum design and provides meaningful feedback for students to act upon to realize their academic potential.

Accountability and the Recognition of Education as a Collective Value

E. Thomas Moran
Assistant Vice President for Academic Affairs
SUNY College at Plattsburgh

Obviously I came with some thoughts on assessment to present to you but, it seems to me, there are themes that can and should be gleaned from what has been said here today. Therefore, let me explore with you what I think is worth highlighting about today's discussion. To begin with, there seems to be agreement that there are two orientations to assessment. Although not incompatible, they are conceptually distinct. One is external and has as its primary focus accountability. The other is internal and has as its primary focus improvement of educational practices within an institution. Regardless of the value these two approaches may offer, we have identified problems in both of them. These problems need to be stated clearly because they are the obstacles that must be overcome if the "assessment movement" is to have a meaningful and beneficial influence on higher education. Moreover, some of these problems are potentially so dangerous that they must be avoided or the widespread adoption of assessment activities could undermine the unique nature of American higher education. A clear-eyed recognition of these problems, however, should serve as an initial step in formulating principles to guide assessment efforts and to insure that they operate to serve the ideals of higher education in this society.

Let me explore further the two orientations to assessment which I've noted. One is oriented to external constituencies and is intended largely to demonstrate accountability. Higher education cannot explain to the public that we won't or can't tell them what we do with $100 billion they invest in this enterprise each year. We have a clear responsibility to attempt formally to understand and to communicate what happens to students as a result of the whole educational process. It is this responsibility which necessitates that we be responsive to the issue of external accountability. Accountability is most usefully understood as consisting of two elements. One is basic skills. The other is economic productivity and vitality. State policymakers are increasingly interested in the relationship between education and economic development. Their interest focuses on two components of primary value—one is a trained workforce and the other is technology transfer. We can reasonably determine how well students should read and write to satisfy the requirements of basic skills education. Insuring that they indeed do so is quite another matter. Incidentally, this issue has become important because there have been complaints by business leaders throughout the country that graduates of American higher education cannot always engage in basic intellectual functions. The other issue, that of economic productivity, is one educators typically don't think of as measurable, although economists do. They spend a great deal of time determining the exact contribution that education makes to economic productivity, and do a good job of it (for a discussion of these issues, see for example the work of Psacharopoulous or Windham). Their findings ought to be more routinely integrated into research reports on educational effects.

The other orientation to assessment involves the use of assessment to improve the learning and development of students in the context of higher education. The primary focus

here is an internal one. When we started our program at Plattsburgh, people would ask "What's new about faculty giving students tests or assessing them—haven't you been doing that in colleges for a long time?" Clearly, the answer to that question is yes. However, it may be helpful to conceptualize assessment as operating on two levels. The micro level, which includes the traditional kind of assessment that occurs between teacher and student, is utilized to make judgments about a student's performance, usually with respect to a discrete unit of learning and domain of knowledge. The other is a macro level of assessment. In this case assessment is stood on its head. It uses aggregate measures of student performance to make judgments, not about the individual student, but about the institution, its curriculum, and the educational practices of its faculty. To that extent, it examines the impact of the total educational experience and endeavors to determine whether or not that experience represents something more than the sum of its parts. Essentially this represents a new approach to assessment in higher education. It requires a new set of terms, and a new conceptualization that borrows from the field of evaluation research, as well as from the disciplines of cognitive learning theory and human development. Yet, it is distinguishable from these fields. Assessment is establishing its own niche consisting of a growing empirical base, acceptable methods, and established purposes.

Having agreed upon these two approaches to assessment, I would like to identify problematic elements of both. A first and perhaps fundamental concern is that, in contrast to other sectors of the economy, there are no clear performance standards in higher education. Consequently, a single standardized set of measures mandated across the system would be counterproductive and dangerous. Because higher learning is a complex, holistic process, the outcomes are not easily reducible. As a result, there are considerable problems in determining *what* to measure: it is very difficult to make judgments about wisdom, about creativity, about originality—the kinds of qualities that may lead to a future Nobel Laureate.

This leads me to a second point—which is, that the time horizons for learning are long. William James once said that "the teacher touches eternity because no one knows where his influence will end." It raises the question of what the teacher does who excites the commitment and intellectual capacity of the student who will one day discover the cure for cancer. These qualities are hardly known nor readily measurable at the time a student graduates from college. Nevertheless, they are clearly outcomes of the learning process.

A third factor is that education is interactive. By this I mean it is not simply a question of what the institution does to a passive student. We glibly talk about institutional "impact" and how we are going to measure it. But, impact is not quite that unidirectional or simplistic. Some fascinating research is emerging that points out a rather obvious feature of education, that the quality of a student's own effort also affects the outcomes of the educational process. Teachers have always known this, but early assessment efforts tended to ignore it. In recent years, Bob Pace at UCLA has focused attention on the quality of student effort as an influence on educational outcomes and is devising means by which it can be measured. Additionally, student peer group interaction may be of great importance in producing positive gains in learning. Zelda Gamson highlighted this theme in her book *Liberating Learning* when she observed that education is as much a sociological experience as it is a psychological one. A study by Philip Treisman, an anthropologist at Berkeley, is instructive here. He attempted to examine why some culturally distinct groups seemed to do much better in certain subjects than other groups. Specifically, the distinction between blacks and Asians in math. He used an

ethnographic methodology to examine this question and found that the single most important factor seemed to be that Asian students treated their pursuit of knowledge in math as a social activity. They spent a great deal of time interacting with one another in the common study of math, whereas black students treated the educational process (with respect to math at least) as a solitary one—not a group process and not an interactive one. Consequently, their comparative performance in math suffered. When interventions were employed to change these patterns, however, their performance improved dramatically. Apparently, student peer group interaction and the quality of student effort, as well as the more frequently studied issue of faculty–student interaction, all have an impact on the learning process. Unquestionably, these are extremely complex factors to isolate and study. An additional factor that complicates the comparative evaluation of educational outcomes is the plethora of intellectual perspectives which serve as the foundation for various curricula at institutions around the country. This plethora of competing ideas is linked to the intellectual vitality and creativity of the nation. We don't want to put learning on a Procrustean bed or standardize it to the point where we undermine our intellectual vitality as a people simply so that we can conveniently evaluate student learning. That's a danger that we have to be most careful to avoid in undertaking assessment efforts.

My fifth point relates to the diversity of institutional missions of colleges and universities. Ted Fiske discussed this earlier today, as did Carol Boyer and Joe Burke. The United States, in contrast to all other nations, educates 57 percent of the age cohort. Depending on how the figure is calculated, the closest competitor nation is still probably under 20 percent of the age cohort. Education serves a multiplicity of purposes in this society that it does not serve in other countries. For example, we have a long history of values education in our religious colleges. We also provide vocational training in our technical schools, and have a tradition of self–development in our liberal arts colleges, as well as the instrumental purposes of education reflected in our professional schools. It is very difficult to provide standardized measures across a system with such a diversity of institutional missions.

Finally, assessment efforts must also contend with the question of what to measure given the range of cultural and individual differences in this society. What is to be valued? Concern for this question is reflected in the debate that raged around William Bennett's report *To Reclaim a Legacy*, describing the traditional canons of literature that he believed should be emphasized in the humanities. It was also the basic grist in Allan Bloom's rather meandering and often fitful book, *The Closing of the American Mind*. E. D. Hirsch, in his carefully researched and argued treatise on *Cultural Literacy* (its provocative "list" notwithstanding), came at the question from a somewhat different perspective. He pointed out the importance of a shared body of commonly understood knowledge if public discourse is to take place at all. He further examined the way in which individuals who lack that knowledge are closed out of effective participation in the life of a society.

The concluding lesson from these points is that no single or simple yardstick can work to make assessment judgments across a system. Moreover, it could be dangerous to attempt to do so. Such an effort could promote insidious comparisons that would devitalize intellectual, institutional, and cultural diversity. Furthermore, it could lead to a vapid reductionism in the way we conceptualize education.

In addition to the problems of *what* to measure that I've alluded to, there are also a host of problems in *how* we measure the outcomes of education. (For an excellent discussion of this issue, see Ernie Pascarella's essay entitled "Are Value-Added Analyses Valuable?") A theme woven through the discussion today was that measures are inevitably imperfect. Therefore, we are going to have to work at developing more effective approaches to assessment that are at once more creative and more meaningful to the educational process than those currently available. We also are going to have to adopt a series of principles for the use of assessment results. Trudy Banta mentioned those that exist at her own institution. It seems that all institutions seriously engaged in assessment have some values that accompany the development of the program on the campus. The language may vary, but the themes are common. We must respect that a curriculum is ultimately an article of faith on the part of a faculty about what they can and should provide to students. Assessment, viewed merely as a set of technical activities divorced from the values and spirit of an institution, is unquestionably dangerous.

Despite the problems we've noted, we are also in evident agreement that assessment is clearly valuable and that it holds much promise to enhance higher education. In this regard, some additional themes I saw emerging today warrant emphasis. Among these is the way we value higher education. We have long focused on the benefits of education in this society for the individual. We are now beginning to focus on education in terms of collective betterment and to relate it to our collective well-being, and that really does represent a shift in perspective. Ted Fiske talked about the end of "the ecological frontier," noting that the boundless resources of our society traditionally allowed us to have an inefficient educational program and that we were now going to have to become more like the Japanese and "live by our wits." I hadn't heard it expressed quite that way, but it makes me realize that we are coming to a very different sense about education. Historically, it has been treated as something that benefited the public through what economists call externalities. In this view, the private context dominates. Individuals make educational choices for personal enrichment; secondarily these choices of personal investment and consumption have positive ramifications for the larger society. We're now asserting that education itself is a public good which requires a new conceptualization of investment in education. Having come to this nascent conclusion as a society, we can interpret the emergence of assessment as a way by which society can ensure that higher education will directly and self-consciously serve public and collective purposes. I think the assessment movement, to some extent, reflects this growing awareness within our society.

Another point from Ted Fiske: quoting Ernie Boyer, he mused that "maybe . . . the academy [is] out of sync with the society supporting it." A number of analysts have pondered this possibility for quite some time. I have been at many conferences in recent years where observers have talked about a pendulum swing in higher education with respect to institutional priorities. These observers contend that there is an increasing concern for teaching, as opposed to research. It is becoming especially apparent in certain types of institutions, particularly those that historically have had a fundamental purpose in the teaching of undergraduates. There's a willingness to reverse a tendency that operated in higher education for at least 40 years, a tendency identified by Jencks and Riesman in *The Academic Revolution*, for institutions to mimic those above them in the status pecking order. As a consequence, all institutions were becoming like research universities. Yet, that orientation can be harmful to the morale of faculty who were attracted to certain types of institutions because

they preferred to devote their professional efforts primarily to teaching. Increasingly, however, we are now observing in many institutions a rediscovered touchstone of institutional values. These values are based on the positive difference education makes in the lives of students. However, once we endorse a touchstone based on such institutional values, it's incumbent upon us to devise means whereby we can actually assess and determine the positive impact the educational experience is having on students. Assessment is, therefore, a way of operationalizing those touchstone values.

Let me diverge here for a moment. We talk frequently about assessment as something that takes place at colleges that were once at the margins—once considered second- or perhaps third-rate institutions. By contrast, however, Joe Burke has a theory about those institutions at the top of the institutional pecking order where quality is defined exclusively by notions of reputation and resources. He contends that these institutions are now highly constrained by those definitions. It is difficult for them to undertake innovations. A great deal of the creativity in higher education is now occurring at very different kinds of institutions, such as Alverno College and Northeast Missouri State University. Despite this, it is an ironic historical footnote that the term *value-added,* although it took root in some of these formerly less prestigious colleges in the late 1970s and early 1980s and was made famous by the writings of Alexander Astin, actually originated with David Riesman at Harvard. The first full-scale value-added study was done by Dean Whitla in the Office of Instructional Evaluation there in the mid-1970s, and relied extensively on the work of Lawrence Kohlberg and William Perry, both scholars at Harvard.

Another theme that emerged today is that assessment must respect the uniqueness of institutions and, consequently, must employ a multiplicity of measures and methods that are sensitive to the distinctive competence and character of individual institutions. The point has been hammered on over and over. Its acceptance requires the development of innovative measures and experimental evaluation programs. This is something that Carol Boyer and Peter Ewell uncovered in their research. It's something highlighted by many speakers today. The question of developing innovative measures leads to recognition that a culture around assessment will have to grow in each institution which engages in assessment activities. The development of valuable and complex forms of assessment is going to take faculty and educational researchers a considerable time to bring to fruition. Nevertheless, I think the assessment movement has already produced some enduring consequences. As Ted Marchese and Pat Hutchings have observed in their cogent writings, institutions in the future will now give more concerted and systematic attention to the impact they have on students. But developing systems for doing so is going to take resources and time. Perhaps Mae West had good advice for us on this score when she said: "Anything worth doing—is worth doing slowly."

Which brings me to a final theme that emerged today, which is that too much external pressure can undermine the educationally relevant function of assessment and lead to manipulative, useless, and uncreative approaches, as well as invidious institutional comparisons. Colleges are not airlines, nor are they hospitals. We have to respond to colleges as very different types of organizations. The central element of a college is knowledge—its transmission in teaching and its creation in scholarship. These are highly creative and highly fragile enterprises that can't be measured in the same way we can measure whether airlines lose baggage, land on time—or crash. But assessment, developed carefully and wisely, can support the activities that are central to the academy.

IV. CONCLUSION

The assessment movement and the reform of undergraduate education will continue to command major attention as higher education moves into the 1990s. Given the increasingly tight budgets in New York State, colleges and universities will be seriously challenged to improve quality and productivity. The authors of this Special Report have argued that the demands for accountability put pressure on higher education to introduce new assessment strategies in order to improve the quality of undergraduate education. Four factors lie behind the accountability push—the need to maintain a competitive edge in the world's market places, the values of democratic society, fiscal accountability, and the need for consumer protection. These external pressures have led to a reform movement, starting initially with K–12 education and then encompassing higher education. As a result, a new model of excellence, the talent–development model, along with several new or revitalized approaches to assessment, are being implemented on a wider scale than ever before. Section II of this report identified these strategies and described several institutions and states who are on the cutting edge of reform. Speakers at the Norstar Conference provided current information and insights into the assessment activities nationally, in several leading states, and at a number of pioneering colleges and universities.

In summarizing the status of assessment efforts across the nation, Carol Boyer from the Education Commission of the States identified five practical guidelines that are worth restating as part of this conclusion. She advocated that both state and institutional leaders capitalize on existing information, use existing "points of contact," create a visible center for assessment activity, experiment with pilot projects, and use results in identifiable ways as part of the planning and budgeting process. She also warned practitioners of certain dangers involved in the implementation process, especially the difficulties of communication, the timetables and rhythms of the political and academic worlds, the "press to test," and the creation of an assessment "train on its own track" adding burdens on colleges for producing separate assessment information.

Homer Fisher and Trudy Banta drew important lessons out of the Tennessee experience with performance funding that revealed institutions improving the quality of their undergraduate programs, engaging in new assessment activities, receiving additional resource allocations tied explicitly to improved performance, and the use by faculty of systematic data to clarify program objectives, modify curricula, improve course content, and increase student satisfaction with their college experiences. Donald Farmer called our attention once again to the central responsibility faculty have in viewing assessment as a learning strategy, giving students feedback about their competencies in an outcomes–oriented curriculum at a private college. Finally, Thomas Moran, in his conference wrap–up, called our attention to recognizing the collective value of higher education and to view accountability and assessment orientations, not as contradictory or opposing forces, but as complementary and reinforcing ways to improve undergraduate education. Moran also warned us of viewing assessment as a technical or measurement activity largely divorced from the values and spirit of an institution and faculty commitment to excellence. Perhaps Joseph Burke said it most succinctly in the title of his speech, "Academic Assessment: The Right Thing for the Right Reason." As Burke

states: "The true test of the assessment movement will be whether it can develop and establish a new definition of institutional excellence and quality in undergraduate education—a definition based on inclusion rather than exclusion, on performance rather than prestige . . . . The question is whether the supporters of assessment will have the courage to replace it with a broader view of quality that suits the higher educational needs of our diverse and democratic society" (Burke, p. 30).

In this Special Report, the authors have recounted the salient points of the reform movement and have introduced broader models of excellence and approaches to assessment so that a diverse student population and the values of a democratic society can be enhanced. Again, Burke speaks to the dilemma of American democracy in how it reconciles equality with quality. "Some fear our resolve for equality will result in the 'mediocrity of the many,' while others feel our push for quality will produce the 'elitism of the few'." But as this report sets forth, the dilemmas of accountability and assessment, or equality and quality, or access and excellence are not mutually exclusive or derived at the expense of the other. Rather, as Thomas Jefferson saw early on, education is an indispensable link between equality and quality. The dynamic interaction of one enriches the other. The goals of access and excellence, of demonstrating accountability and assessing performance, represent a challenge, not a choice, for higher education. America has created a higher education system capable of responding to that challenge. By raising fundamental questions about the quality of undergraduate education, the current assessment movement has begun a debate that will enrich the overall educational enterprise as it moves into the 1990s.

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